

St George's owners hold talks

ARBUTHNOT Properties, the new half owner of William Wilkins' St George's Hospital building at Hyde Park Corner, is to discuss plans for reusing the building with Grosvenor Estate, its benten rival bidder and now semi-detached neighbour.

Martin Myers, chief executive of Arbuthnot, pledged this week to restore the grade II listed building "to its former glory". Westminster planners are also determined to see it restored, as they can now take legal action to force repairs following the end of Crown immunity.

Grosvenor Estate said it did not rule out the possibility of a joint development. It owns the major part of the site, including existing access.

DHSS review cuts architectural staff

ARCHITECTS' jobs in the health service have been lost as part of a review of Department of Health and Social Security functions.

A reorganised Health Building Directorate has been formed, with a staff 40 per cent smaller than the parts of the former Works Group it replaces.

Former DHSS chief architect Howard Goodman heads the directorate (under-secretary rank), which represents "a new philosophy in health building management", according to the DHSS. Its tasks will involve research and development of

RICS launches campaign to fight off competitors

By Lewis Blackwell

CHARTERED surveyors launched a major publicity drive this week aimed at fighting off high street competitors and muscling in on other building professionals' work.

The Royal Institution of Chartered Surveyors claimed a "marketing first" in departing from the normal professional etiquette by putting out a slick publicity brochure, produced by design and marketing consultants.

Entitled *Warning: not using a chartered surveyor can put you at risk*, the brochure assemblies uncredited images of buildings

built environment... chartered surveyors have more influence than any other single profession over the appearance, quality and prosperity of the developing environment."

The institution hopes to influence potential clients into seeing surveyors as the natural project leaders.

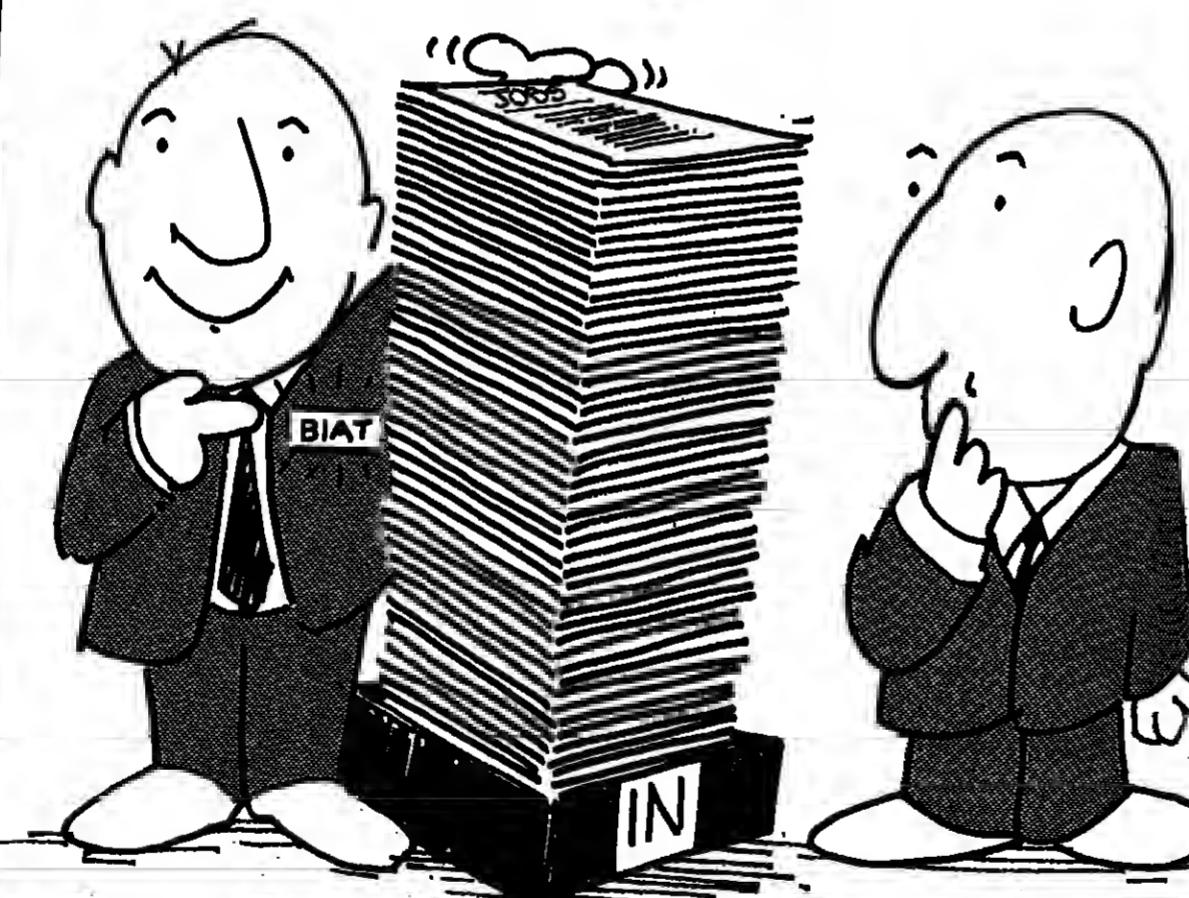
Neville Eldridge of the brochure designers, consultants Boyd Eldridge, said: "This has to be the way for the professions to use natural resources and the

built environment. I would dearly love to get my hands on the RIBA, although I don't suppose the RICS would allow me."

And the institution's council this week also proposed to change its rules on limited liability, to allow members to bring in outside capital, such as break-away surveyors have done by going on the unlisted securities market. An extraordinary general meeting of the RICS will decide on July 14.

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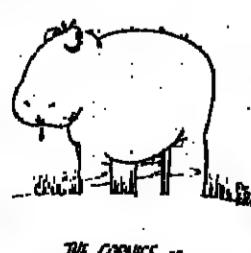
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THE CHANCE OF
LARGE SHOULDERING

BUILDING DESIGN

No 786

The weekly news

the design team

FRIDAY MAY 9 1986

Giant shop scheme

Plans by Chapman Taylor for a £10 million shopping and leisure complex on the River Don in the Shirefield area of Leeds are about to go before planning permission.

The proposed development,

at the Mordenhall Cross, 40ha derelict site once owned by Kynthorne Hall, is to be the first outline planning application for the John Brumley designed retail park at Stanningley, outside Leeds.

The development, by the Mountleigh Group, is to include shopping and leisure centre complete with a 10-screen cinema, sports village, bus station and 3,000-space car park.

Besides shops, it will include a multiplex cinema, sports village, bus station and 3,000-space car park.

Not quite £500 million (see story below) but even £250 million is set to give Yorkshire something it has not seen before in the shape of the John Brumley designed retail park at Stanningley, outside Leeds.

The development, by the Mountleigh Group, is to be the first outline planning application for the John Brumley designed retail park at Stanningley, outside Leeds.

Developer Roy Sandhu said he wants to redevelop the Ian Ritchie-designed 60-storey office tower to the new Tower Hamlets council, following local authority elections.

The council's director of development has a report awaiting new members which recommends refusal of the scheme as being an over-development contrary to council policies.

And the Royal Fine Art Commission weighed in with its opinion this week. Chairman Norman St John Stevens said the commission had "deep concern about the size of the building, especially the shadows it would cast and the down-draught it would create". It called for Tower Hamlets to prepare a planning framework to consider the implications in detail.

Spitalfields market study

DEVELOPMENT consultants Bernard Williams Associates are to carry out a study of the future of Spitalfields Market for Tower Hamlets council.

Their work will form the basis for public consultation beginning next month. This follows the council's expectation of development proposals being submitted following the local elections, which will include London & Edinburgh Trust's

plan to redevelop the market.

Midlands council backs £500 million mixed development

ARCHITECT PLANS RETAIL COLOSSUS

PLANS for the biggest shopping and leisure complex in the world are being drawn up by an architect-developer for a derelict Black Country steelworks site.

Behind the scheme is AA-trained Igor Koldotschko, head of the Stratford-upon-Avon based Color Properties. He has appointed Percy Thomas Partnership to design the £500 million development.

This move follows hot on the heels of D Y Davies' recent successful flotation on the USM three weeks ago. Shares in D Y Davies have shot up by 31 per cent in two weeks.

John Wheatley said his company had "an encouraging amount of work on", and that a flotation was likely early next year. He estimated around a dozen other architects were also lining up to join the USM.

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The team last won the crucial backing of Sandwell council, which owns the 40ha steelworks site in Wednesbury.

Koldotschko now has a six-month option on the site, but expects to gain final approval for the project well before that

deadline. Sandwell council will be joint developer.

"I know it sounds big," said Koldotschko, "but I can assure you this project is fully commercially viable. It will be half leisure, and half shopping, that's what makes it work."

He has based the proposal on the Edmonton Mall development in Canada, by far the

world's biggest such centre.

Before last week's council meeting he and PTP partner John Vergette took leading councillors and officials to see the Edmonton scheme and hear how it had solved the city's unemployment problems at a stroke.

Koldotschko said his development would become an international tourist attraction.

There will be a Disney-style fun park, a zoo, a 24-screen multiplex cinema, more than 60 restaurants and 800 shops. In all, amounting to more than 450,000sq m of development.

Talks are going on with the DoE on the scheme's implications, as well as in the hope of obtaining grants towards infrastructure improvements. The developer also claims the back-

ing of Birmingham council, and is hoping that the size of the project will help revive the proposals for a West Midlands rapid transit system.

"There will be massive rate gains," said Koldotschko. City sources had indicated firm interest in funding the scheme.

If the project goes to plan, the first phase will start on site next year with overall completion in 1992 — the year of the Olympic Games that Birmingham is bidding to stage.

PTP are already heavily involved in the city with work on the International Convention Centre. This is linked by enfilade to the steelworks site.

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London watchdog launch

A POTENTIALLY powerful new committee formed to advise on sensitive London planning applications met for the first time this week amid growing pressure for changes to big developments in the capital.

The London Advisory Committee, including

others in competition to design a new headquarters for the Tokyo city authority.

The scheme, which will take five years to build and cost more than £500 million, includes twin towers 243m high, a 163m high atrium and a hexagonal lower block. Some of the competition assessors attacked the scheme for making such close reference to European architecture.

Two London developments causing most concern to conservationists are the proposed scheme for the Royal Mint building on the edge of the Docklands by RMJM, and the

conversion of St John's Lodge in Regent's Park to an art gallery by American architect Charles Young and English associate Michael Manser.

Plans for the Royal Mint, known as the Johnson-Smirke building, have been criticised by

conservation groups who say that the planned refurbishment will destroy the building's architectural and historical qualities.

The London Advisory Committee, while generally in agreement with RMJM's scheme, will have an active role in any future discussions over the Mint.

continued page 3

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Rostrum

AS the designer of the renowned Children's Home in Amsterdam and the most influential teacher to have emerged from Team X, the choice of Aldo van Eyck to be the first architect invited to speak at Clare Hall Cambridge's Tanner lectures on "Human Values" was natural.

During the day-long seminar which followed the lectures and was chaired by Joseph Rykwert, Colin St John Wilson described van Eyck as a "philosopher-architect" who uses reflection as a means to the making of buildings. This was in response to debate arising in the seminar as to whether architecture conformed to an artistic metaphor or a scientific one. Certainly van Eyck had made plenty of references to both practices in his lectures, and indeed their title, "The Medicine of Reciprocity", in part referred to this hoary problem about architecture's nature.

Van Eyck's desire to ground design in human nature has informed his work since the Team X Osterlo conference in 1959, and throughout his lectures he returned to the themes and motifs now familiar to his architectural followers but still new to his academic audience. These included the value of anthropology and learning from "primitive" cultures; the reconciliation of opposing necessities; the need to confront and deal with the existential uncertainty consequent upon the discoveries of modern physics that have brought man for the first time to a primordial encounter with his own nature; and the need to understand that nature as a replacement for the fixed and hierarchical cosmic mythologies that guaranteed archi-



Aldo van Eyck: "A great idea, half told, and barely understood."

The flying Dutchman

Aldo van Eyck was the first architect to give the Tanner lectures at Cambridge. Brian Hetton reports.

telectual order in former times: "whatever Space and Time mean, Place and Occasion mean more."

Once again we were shown Van Eyck's germinate emblem of twin circles that he designed for Otto in which three parades — the classical temple ("immutability at rest"), an orthogonal projection of an elementarist structure by the De Stijl Van Doesburg ("modernist continuity"), and a plan of a Pueblo communal dwelling ("behavioural, vernacular form") — were represented as the thematic material for a modern architecture of humane-reconciliation.

Many of these themes had been developed by van Eyck in the 50s and 60s during his critique of reductive modernism, and especially CIAM: "CIAM became a shell with no interior, and therefore without the sound of the sea."

However, even before he had come to this point in his lecture it had become evident to architects in the audience that van Eyck was using them now in another polemic, this time against so-called "post-modernists" and the new metaphysical rationalists. Van Eyck

restrained from naming names,

sky. Only "the architectural Modern Movement soon sidestepped the issues that constituted the essence of the avant-garde". This was the story of a great idea, half-told and barely understood, wasted; this century's modern movement in art, science, and thought. But when the current "interruption" is over and history is no longer squared, human matters will count once more; beyond the mock complexity of feigned contradictions the real job will continue.

This was preceded by an extended illustration of his themes by slides of primitive artefacts in van Eyck's own collection. One could readily appreciate the inspirational value of these actually highly sophisticated designs, while doubting the rigor and justifiability of his method of reading them without full reference to their original significance. Can van Eyck's personally vivid apprehension of these artefacts constitute anything but a purely personal, and therefore unreliable, method for learning and design? At times the argument seemed over-simple and when, during the subsequent seminar, van Eyck claimed that making good buildings was in no way different from good baking, Rykwert, art historian that he is, was moved to declare: "I think that is disingenuous."

The question of method dominated the seminar, with Amos Rappaport opening with a call for a new disciplinary base to architecture founded upon evaluative technique, a view supported to some extent by the following speaker, the social psychologist Irving Altman. These views were attacked

by many of the new priests of ritual and meaning in architecture? Is not Graves forever mauling potentially about "threshold", even if it simply turns out to mean for him a place where much expensive marble and elephantine gesturing is to be found?

Moreover, sympathy with Van Eyck's exposition was tested by his digressive, even self-indulgent, style of presentation, which took hours to reach its point. One felt that insofar as the "philosopher-architect" exists,

during open discussions countered that architect be criticised but it can object of evaluation.

Another point made expounds of positive always fall back when on the roots of criticism in design, admission that "the course can be a role for us". Rappaport had just found not the value of divinatory methods of design to cosmic myth, articulation of course been precisely to avoid solipsism and individual intuition?"

The two final brought the debate to a head van Eyck's group. St John Wilson emphasises that such bling-bang of architecture, and architecture is not the sole problems but the integral of situations.

Finally, Francis P. the most recent of the talks, returned to them closed by anthropological sacrifice and gift, metaphor substitution embodied

itself; of the size, separation that is inherent, myth, which even in its parent absence still finds background to modernity.

To this modern uncontrollable or uncontrollable, architecture must build the container home: "Van Eyck is one very few artists of the second half of the 20th century continues the most significant sense of the old discourse, (the only valid course of the West), the keenest sense of the old, the ecumenical mould is still this very discernible setting, and without any sense of which it is itself condemned to bite it's

because as the world will destined to become West as also the Western world certainly not soon will man becoming Tardis."

The result was to be announced at the RIAS convention today.

Other practices invited to

enter were MWT Architects and Law & Dunbar-Nasmith Partnership.

The result was to be announced at the RIAS convention today.

The scheme is being drawn up by Shaw Associates, a firm of chartered surveyors and architectural consultants.

A total of 99 terraced houses and 120 flats are planned for the 4.2ha site, with parking for 256 cars. There will be a central landscaped area with four tennis courts and a pavilion, as well as 1,500sq m of offices.

The threat to Chelsea's ground is the latest in a long line of cases where major sporting facilities, for a variety of reasons, have been closed or are under threat.

Chester's near neighbour, Fulham, has also experienced developer interest in its Craven Cottage headquarters, and many supporters believe the

plans have been opposed

by the local council and the Greater London Council.

Greyhound fans have not fared much better, with the closure of the White City Stadium.

The stadium at Haringey has also been turned over for development purposes.

Even the Kennington Oval

cricket ground has not been exempt from development interest — only public reaction prevented an office development which would have cut the size of the ground by half, and probably led to Surrey quitting for an alternative ground in the country.

The plans have been opposed

by the local council and the Greater London Council.

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News

Surreal purchase spurned by trustees

THE trustees of the National Heritage Memorial Fund have decided not to support a bid to buy Monkton House, the surreal home of Edward James. English Heritage had agreed to find £750,000, but the Memorial Fund said that it was unable to give Monkton "high priority". The trust said that "although the building has great charm, the trustees were not convinced that it gave good value for money". It said it would have to have found £1 million.

Steve said the loss of Monkton was "terribly sad, although it was obviously not to everyone's taste."

Plans for the house are now uncertain. A mystery buyer has now withdrawn his bid. But the trustees of Monkton still say that they are looking for a private buyer. Some of the contents could stay with the house as part of a "package". The rest of the contents will be sold at auction in June.

Airports' honours

LEEDS and Bradford airport's £2 million extension has won top honours in two recent awards schemes.

Leeds City Council gave the terminal building extension this year's Good Design Award only weeks after the Institution of Civil Engineers gave the airport an award for excellence for work carried out on its main runway.

The three-storey terminal, designed by Leeds city architects with Norwest Holt Construction as main contractor, has a departure concourse with new check-in facilities, ticket desks and information desks.

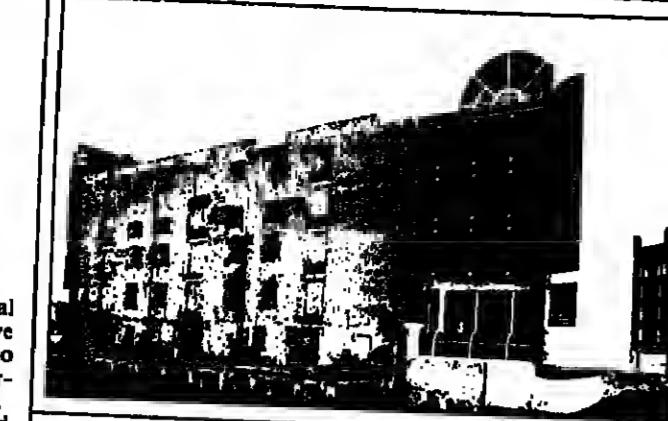
Major new scheme on Isle of Dogs

FOUR teams have been asked to submit designs for an 80,000sq m mixed development at North Quay on the Isle of Dogs, east London, next to Canary Wharf.

The teams are Rosehaugh with the American practice Heery International, The Architects Workshop and Ove Arup, London & Edinburgh Trust with Richard Seifert, and two consortiums, Town & City with Bovis, who are drawing up their own plans, and the Galleria Development Co with Robert McAlpine using BDP.

The site was owned by the Port of London Authority. They have now set up a joint company with the London Docklands Development Corporation to act as freeholder for the site.

The final designs will be released in three months and the winner will be chosen by the

**Award choice**

This year's Towner Hamlets design awards have gone to Hunt Thompson Associates for their Bawden Street housing scheme (right) and to Goddard Manton for an office development at 81 St Katharine Way (left).

Florian Beigel's Half Moon Theatre redevelopment and Colquhoun & Miller's Whitechapel Art Gallery were highly commended in the general category, while the South Quay housing development by Comprehensive Design Partnership and Waterman's Quay by Ronald Toone International were commended in the housing category.

Bath Society head quits in Cavendish House row**AWARD-winning architect**

David Brain has been forced to resign as chairman of a Bath conservation group after a row over his plans for the Cavendish House site.

The Bath Society opposed his plan for the development although, he says, it was initially welcomed by many members.

He has now resigned as chairman of the society's environment committee and is "not

£150,000 worth of landscaping by WLM Landscape Consultants.

The Royal Fine Art Commission slammed it, claiming it was a weak imitation of Georgian architecture and was far too extensive for the site.

But Brain accused the RFAC of grossly misrepresenting the design and said in comments showed a total ignorance of

**Victory for Gillinson**

LEEDS-based Gillinson Partnership have won the controversial competition to design new £8 million leisure complex for Bournemouth council.

Gillinson beat astrological leisure designers.

Controversy surrounded competition because the runner-up practices would be receiving any fees for work.

The RIBA advised prudently against involvement.

Georgian architecture.

The scheme has even divided

between planners, who were asked to produce an official planning brief after the planning application.

Several attempts have been thrown out. Their latest draft may be passed by the

council this week.

1983.

The Government has pitched four sites in and around London for a proposed European Community Trade Marks office.

If successful, the office would be the first permanent European Community Institute to be located in Britain.

The four sites listed are a new building at St Katharine's by the Tower, an office block in Cockspur Street by Trafalgar Square, and sites in Larrow and Croydon.

The scheme in Harrow (pictured) is the only one that would be purpose-built as a package, offering a 96-bedroom hotel, a public library — with additional

reference section for staff of the Trade Marks building — a conference and exhibition centre, and a three-storey office block.

The architects for the scheme are Leslie Sacks & Associates with the London Borough of Harrow. Jakobsen are landscape architects and Ove Arup structural engineers.

Harrow council and developer County & District Properties believe that their proposal will make a "much greater presence than an empty office block".

When all four proposals are received, the Government will make a formal bid to the European Commission. The commission wants to finalise proposals for the office by early next year.

were made at the request of the IBA's legal advisers before it was finally shown.

This was after protests by Plymouth City Council and Torbay Borough Council, which had objected to the backing for Module 2's design for a £16 million leisure and conference centre in the city's Millbay dock area.

The practice's solicitor, Peter Davis, said Module 2 were still considering whether or not to take legal action against the

council.

Torbay council managed to get the main cut it wanted, which related to Module 2's conference centre project for the council in Torquay.

Last year BD revealed the connections of former Torbay chief architect Ray Banks with Module 2. This was brought up in the TSW programme, along with a review of the problems that have been encountered on some of Module 2's earlier projects.

Despite problems on several leisure-related buildings that Module 2 have been involved with, the practice has continued to win major leisure projects.

Current work includes a scheme for Brent Walker, the developers fronted by the former boxer George Walker, on the Basildon Astrodome and at Brighton marina.

News

Module 2 issue two libel writs over tv documentary

Independent Broadcasting Authority for permitting the showing.

The programme, "In for a penny", was twice delayed from being broadcast and changes

Plymouth council chief executive Andrew Forbes-Watson said the city's leisure and resources sub-committee had viewed the programme, considered Module 2's comments and rejection of the allegations, and then unanimously backed their design.

The scheme would now go out to tender, and Module 2 would be among those invited to submit. The plan was to have it built by spring 1989.

He said the council was examining its legal position, and considering taking action. "We are concerned about the programme. The council totally refuses any suggestion that it has dealt with this matter in secrecy or haste."

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Pevsner's memorial library appeal launch

SIR Nikolaus Pevsner is to get a memorial library within the British Architectural Library.

An appeal has been launched to raise funds that will be used for buying architects' papers and books on British architecture in fields that were of particular interest to the historian, who died in August 1983.

The special collection would be available for study.

A Pevsner Memorial Trust is also being set up to raise funds for architectural conservation.

Money raised will be used to help conserve works that Pevsner is known to have admired and that are now threatened.

The Buildings of England series will form a ready source for the information. This trust appeal will be launched in the summer.

The library fund is appealing for material as well as money.

Patrons include Denis Lasdun, Richard Rogers and John Summerson.

Details from the librarian,

RIBA, 01-580 5533.

Barratt gets another bite in Portsmouth

BARRATT is again a frontrunner in the controversial choice of a company to refurbish the defect-ridden Portdown Park estate in Portsmouth.

The two will now be invited to present their proposals to the council next month.

New role

FORMER DoE chief architect Peter Temple is to be the new chairman of the Building Conservation Trust's technical committee.

Instead, it rejected bids by

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Gloucester Green set to go ahead

THE troubled Gloucester Green development in Oxford looks set to go ahead at last.

New developer London & Metropolitan had wanted to buy the freehold of 2,400sq m of offices in the project, while the council had only offered a 125-year lease.

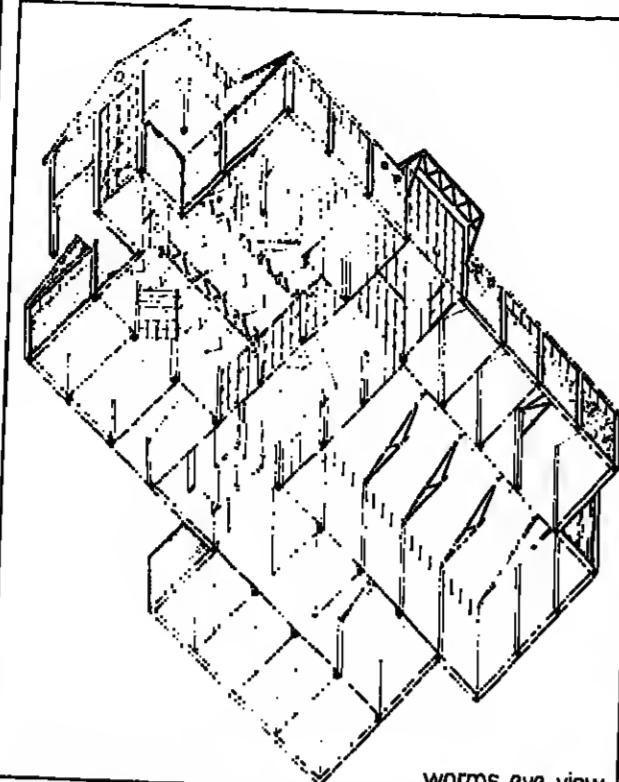
But now the developer will get the option on the freehold.

The scheme first ran into problems when the original developer, Dimsdale, was dismissed after its contract partner went out of business.

Then Dimsdale challenged ownership of the plans. But the council is going ahead with the Kendrick design.

Energy World

HUTCHINSON Locke & Monk's design for Energy World at Milton Keynes is for British Gas and not as stated last week.



Work is under way on a £1 million youth centre in Forest Gate, East London. Designed by Newham architect's department of planning and architecture, it has a steel frame clad in silver profile sheeting to walls with yellow columns, and slate-grey roof.

When completed in early 1987, facilities will include a multi-purpose sports hall, social area, group rooms and a gymnasium.

Conservation groups warn of sell-offs in green belt

MAJOR conservation groups claim the DoE's proposals to relax restrictions on green belt developments could lead to a massive sell-off of farm buildings, threatening the rural architectural heritage.

Under the proposed changes, planning authorities could give permission for the conversion of redundant agricultural build-

ings into homes or small busi-

nesses.

Environment secretary Ken-

neth Baker advised planning au-

thorities that any conversion

must benefit the local com-

munity by encouraging new

levels of employment and enter-

prise.

But Philip Venning, secretary of the Society for the Protection of Rural Buildings, said the proposed changes were "very

worrying".

He told BD the question of

whether a farm building is

redundant is difficult to decide.

"Obviously a farm building is

more valuable developed. With

pressure on the green belt for

redundant agricultural build-

ings, it is difficult to decide if

the proposed changes will be

beneficial to the local com-

munity," he said.

The society is carrying out its

own imminent survey on farm

buildings because they are one

of the "main groups of historic

buildings most at risk", said

Venning.

The Council for the Protection of Rural England is also

concerned that the new propo-

sals could be "an excuse to break

into the green belt".

CPRE spokesman Richard

Bate said: "If Kenneth Baker is

trying to promote employment in the green belt, converting barns into luxury housing is not

the way to do it. This policy

could boomerang unless there

are restrictions on the way it is

done."

But the Development Com-

mision — a Government-aided

rural development agency —

has welcomed the changes.

A 1986 index is now ready

and current figures are

available from the DoE.

The price is £5 from BRE

Wintford WD2 7JF.

Index out

A 1986 index is now ready

and current figures are

available from the DoE.

The price is £5 from BRE

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Masons meet

THE first general meeting

of the newly formed British

Society will be held on

Details: Sian Thomas

636 7122.

Canary Wharf scheme in

London's Docklands is to face a

new legal challenge — from

Greenwich council.

It will revive the Greater

London Council's objections

claiming it is now the "strategic

authority" in the area. It wants

changes in the towers, and

extensions of the rail links south

of the river.

Meanwhile, the Government

looks set to compromise its "no

expenditure" stance yet again by

paying for a £40 million road

link to Canary Wharf under

Limehouse, on top of half the

cost for the 290 million light

railway extension.

Opponents say both schemes are

unusually, and once coun-

cillor attacked them as "hid-

eous".

The campaign is led by

DPC's agm last week.

Murray (above) took over as

president.

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The entrance hall at Spire House, Lancaster Gate. Luxury flats were built on the site of Christchurch, the original church steeple being retained. Architects: GMW Partnership

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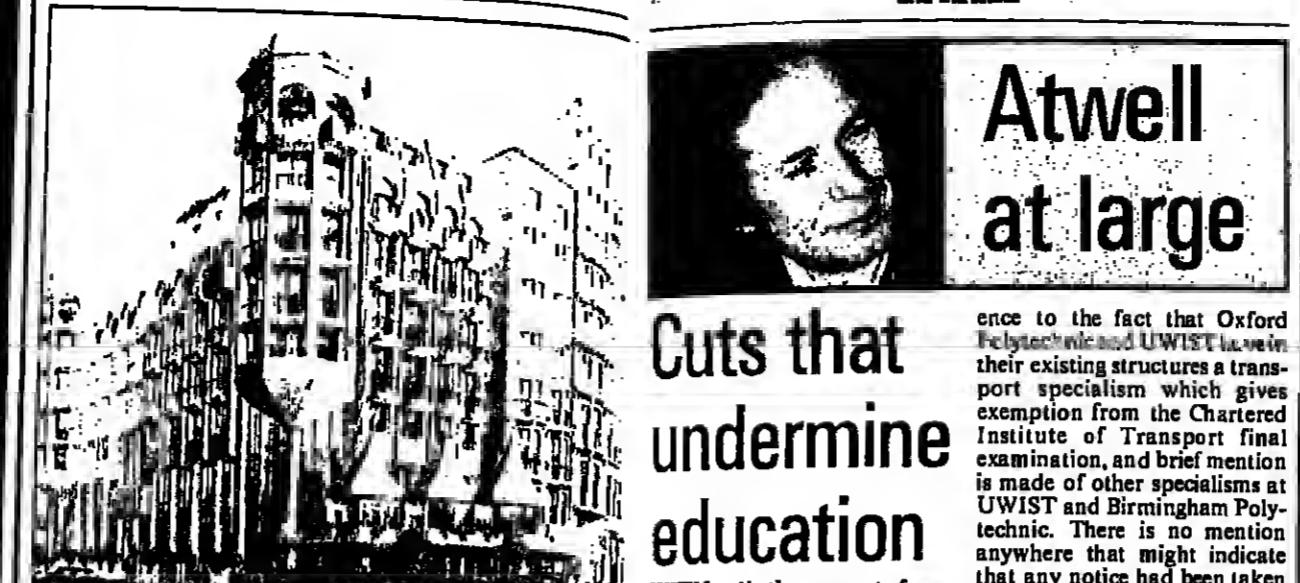
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News in pictures

Infill



Atwell at large

Cuts that undermine education

Grand Hotel rises from the rubble

This is the new block Iggy Yavetz & Associates are adding to the base of the Grand Hotel in Brighton.

Their £12 million repair and development programme involves adding facilities and expanding the size of rooms at the front of the existing hotel. Permission has also been given for office block and residential apartments at the hotel. The 162-bed hotel will reopen in August, with the offices and space car park completed in February 1987.

Lloyd's tradition

Here's another bit of the old in the new Lloyd's of London building to oppose the tradition so beloved by underwriters.

While the installation of the Adam room has been stirring up a little controversy, all seems quiet, for the moment, over the refurbishment of the cellar's rostrum, which houses the Lutine Bell. After the work is completed it will be installed in pride of place below the atrium.

Elliot's of Reading are carrying out the work, along with moving and fitting out the library from the 1928 building into the lower ground floor of the new building.



Let us briefly look at the existing situation: at present there are 25 planning schools, 14 in universities and 11 in polytechnics, already representing a cut of three public sector courses following the last NAB review in 1983. About 560 students will graduate this summer. The main proposal in the working group's stated aim to reduce output to the 300-400 range per year is to reduce the number of schools to 12 or 13. If one allows that no comment is offered on the course at Queen's University, Belfast (which is integrated with architecture).

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The outright closures are drastic: both schools in Edinburgh, the university courses at Nottingham and Reading, the public sector courses at Coventry and Leeds polytechnics, and Essex Institute of Higher Education. Further reductions would be achieved by transnational mergers of the polytechnic and university courses at the Brecon Beacons were being drawn up in 1987, the logical extension of the park across Offa's Dyke into Herefordshire's "Golden Valley" was rejected on the grounds that one could not have a national park crossing the boundary between England and Wales. No matter that the Brecon Beacons National Park takes in part of four different Welsh counties — Gwent, Powys, Mid-Glamorgan and Dyfed — it couldn't possibly stretch into England.

As so often with this type of exercise, the reasoning and information available behind the working group's deliberations seems incomplete in certain areas, and the membership of the group itself is seen by many to be suspect. For example, the only heads of planning schools represented on the group of 10 members were from Oxford Polytechnic and Manchester University, and it comes as no surprise to see these courses among the minority emerging unscathed in the recommendations. Again, while the group draw attention to the wide range of undergraduate degree courses in four different full-time and sandwich structures, one wonders whether sufficient time and consideration was paid to the diversification of training and experience within the schools.

At a time when the Norfolk Broads are to be given similar status to a national park and there is talk again of a designation for the South Downs, it would be appropriate to extend the Brecon Beacons National Park into the Golden Valley, both to protect its beauty and amenities for the future and to demonstrate that coordinated care for the environment should know no boundaries.

Printing money

This limited edition print of the Gaffrey Museum in east London, from a specially commissioned watercolour by John Piper, is available from the Friends of Gaffrey Museum. Proceeds will go towards projects, educational work and acquisitions. The edition consists of 100 signed and numbered prints. Details: Mrs Z Pile, Honorary Secretary, 97 Hertford Road, London N1 1LJ.

There is, for example, refer-

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BUILDING DESIGN
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Helping hands

The big surprise of the week has been the untoward fuss about the proposed alterations to St John's Lodge in London's Regent's Park by an American architect, Charles Young (English associate Michael Manser). In order to house the art collection of US collector Edward Koch. The building, formerly occupied by Bedford College, is one which the public knows nothing about, nor is there any compelling reason why it should. It is a fine building of its sort which has been extensively altered by architects over several generations, unnumbered by conservationist groups. The current proposal has prompted eminent architect Brian Sewell to question whether Koch's collection exists, and has aroused the wrath of the views of any of these three, was written by a paid official of the Save Britain's Heritage organisation.

For the outside observer, the whole story has been blown out of all proportion. Does anyone care what they do with St John's Lodge, or which version of the past various interest groups have most reason to want restored? Why can't they knock the thing down and give us an entirely new building — it wouldn't come amiss in Regent's Park. Perhaps the architect could design something which would be an "exciting modern solution".

which was what Save hoped would be achieved for the Grand Buildings site, something which posterity would remember the 1980s by. In the meantime we continue, in the metropolis, to live in a sort of design nightmare in which everyone from Prince Charles to Alan Bennett gives some overpowering reason why no new architecture should be created. There is just one sign of relief on the horizon. Norman St John Stevans, now (or quite new) guiding light at the Royal Fine Art Commission, has actually praised Camden council for supporting Nick Grimshaw's excellent new designs for Sainsbury's in Camden Town. On the other hand, Norman wants to produce his own design guide document. Is it a helping hand or the offer of a poisoned chalice?

The BS 747 Class 5 Amendment. If only they'd taken a leaf out of our book.

Will the introduction of the new BS amendment relating to polyester roofing felts mean that the specifier, at last, will know exactly what he's specifying?

Sadly, life is never that simple, and it would be a mistake to assume that all Class 5 felts are now identical particularly as the Standard confirms the fact that they are not.

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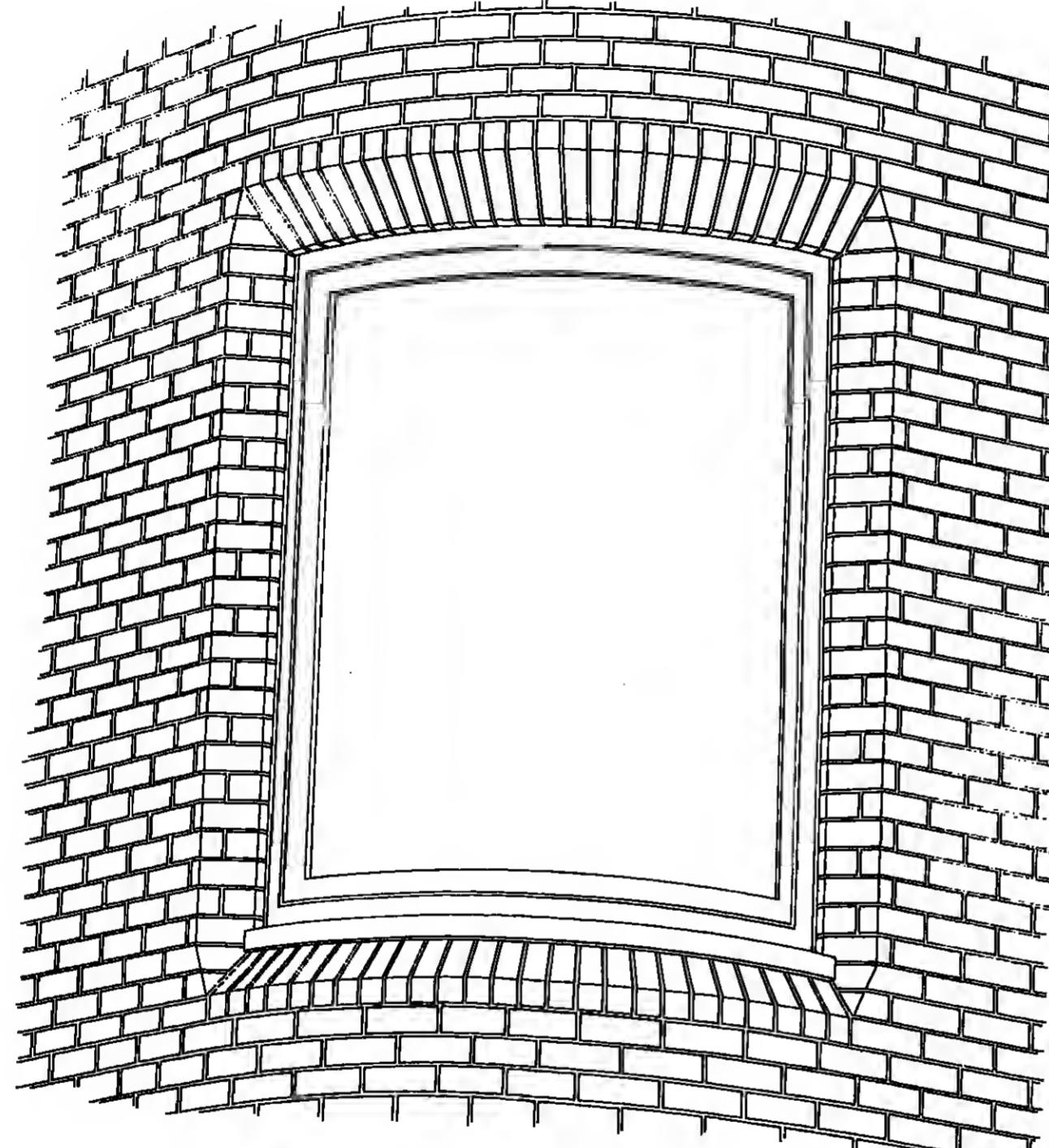
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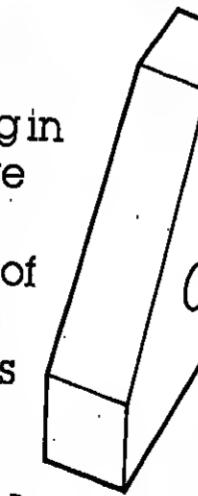


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Scorpio

Statistics



Surveyors aim for architects' work

THE Royal Institution of Chartered Surveyors has embarked on what can only be described as a concerted attack on architects' workload, from large commercial projects down to community architecture schemes. The question is: how will the RIBA respond?

A glossy 28-page full colour corporate brochure has been sent out to 12,000 specially-selected property developers, MPs, Whitehall mandarins, local authorities, banks and the media, called *Warning: not using a chartered surveyor can put you at risk*. Whether this is unnecessarily alarmist or simply comes under the Advertising Standards Authority ruling on "knocking copy" — now legitimate — depends on where you stand.

But in the A to Z "scope of the profession" section, everything which might be called architectural services is incorporated, from building legislation, to materials, design, contract documentation, project management, improvements, listed buildings and conservation areas and planning.

What really rubs salt into the wounds, however, is the choice of colour illustrations: the International Conference Centre at Broad Sanctuary, the NatWest Tower and Stock Exchange buildings, Lloyd's new HQ, the Houses of Parliament and even the Honkers & Shakers all put in an appearance—and with no credit to any of the architects.

"Chartered surveyors," it reads, "have more influence than any other single profession over the appearance, quality and prosperity of the developing environment." Michael Paterson, RICS secretary-general, hints darkly about the "hidden costs and poor construction management" that might arise when not employing one of his members.

• LAST month Rod Hackney, now a developer, contractor and estate agent as well as architect, ignored a ban from "a senior vice-president of the RIBA" when he addressed 220 building surveyors at their annual briefing in Cambridge.

Surveyors had got off lightly while architects were at the mercy of hostile public opinion, he suggested, because they had not yet "raised their heads above the parapet".

• WORCESTERSHIRE surveyor E.R. Heaton has written to *Chartered Surveyor Weekly* demanding to know why architects "seem to be making all the running in the field of community rehabilitation and refurbishment projects."

"Can I suggest that the RICS general council take steps to emphasise, in the appropriate quarters, the relevance of the chartered surveyor to the expanding field of community activity," he writes. No doubt they will.

Star guest misses party

THE Civic Trust, taking on a new lease of life under MEPC and the LDCC's Christopher Benson, invents "Environment Week" to publicise the work of its 1,000 plus local amenity societies. For the May Day

launch it books the upper walkway of Tower Bridge, and environment secretary Kenneth Baker to do the launching.

Come May 1, the bridge is there, but not K. Baker. He does indeed act out by Government Rover with conservation chief Timothy Hornsby. On the Embankment colossal traffic jams: then car radio phone chirrups. Summons from Downing Street: return instantly. M wants briefing on Chernobyl.

So Benson, CT President Lord Duncan Sandys, Norman St John Stevas, the lately knighted Bernard Fielden and others of the Environmental Great & Good—not to mention the nice men from Ibstock who pay for it all—admire the view, then listen to poor Mr Hornsby trying to tell them what KB would have said.

Scene and heard

WHILE the Queen is still expected to perform the autumn opening ceremony of Richard Rogers' £163m Lloyd's building, the insurance market's premises division has bravely offered a case of claret, a 1957 Chateau Montrose for wine buffs, for an appropriate name for the existing HQ.

The competition, open to "names" who must prove liquid assets of at least £100,000, has produced a magnificent response. Given the recent scandals surrounding some of the underwriters, the suggestions include Proteus House, Goldfinger House, Aywun House and Dunleath House.

• CABINET reshuffles are again in the air, and one of the rumours circulating in Whitehall is that environment secretary Kenneth Baker is due to move to education to replace Sir Keith Joseph.

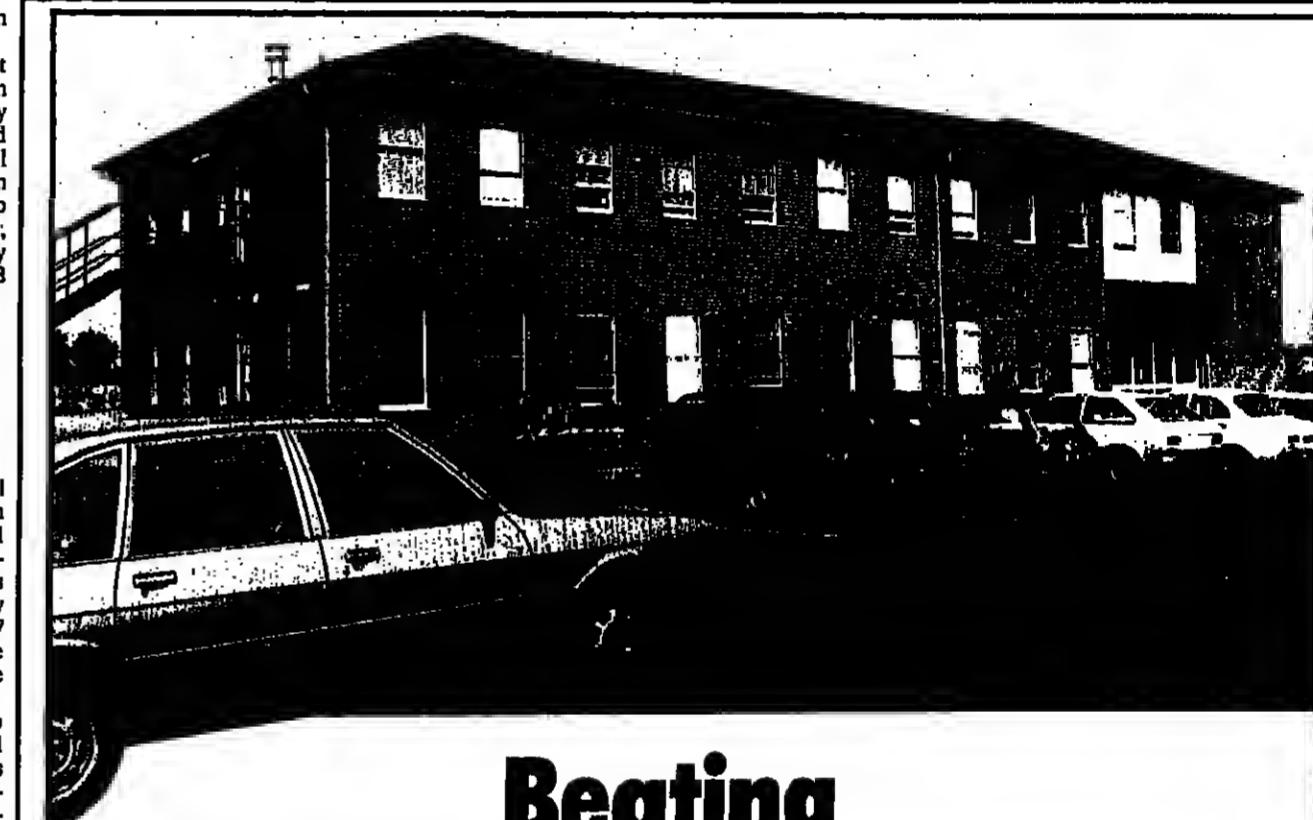
This could pave the way for the fifth man at the DoE since the Tories came to power in 1979; Heseltine, King, Jenkins and Baker all followed in rapid succession.

In case there are any *Scorpio* readers in the Cabinet Office at 10 Downing Street, my Arachnid Almanac at the start of the year was meant to be a joke. Honest. Then I tipped Jeffrey Archer to fill the hot seat, followed later in the year by Norman Tebbit. On present performance my money is on housing, construction and inner city minister John Patten.

10 years ago

The International Solar Energy Society has called for a more organised approach to the use of solar power in buildings. Its current use in architecture is uncoordinated and lacks direction, says a report from the society.

Building Design, May 7, 1976.



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Velvet underground



Crafted brassware and sodium light globes line the mirrored arcade.

WHEN the Trocadero reopened in London's Piccadilly Circus, the universal reaction was one of disappointment.

The show-bit-style spectacle did little to hide the mediocrity of the complex — a tourist trap of specialty shops and restaurants with indoor events on the upper floors.

Given this experience, the Halpern Partnership decided to try harder with the underground arcade linking the tube station concourse to the old Swan & Edgar department store and out by escalators into Regent Street. The store itself is being revamped to the tune of some £2m, and almost half of that has gone on the tiny mall.

Architects Mike Blair and Paul Davis explain that they were looking for something of "an enduring quality" when they set about designing the mall. Though the practice had been involved in the total Swan & Edgar project since 1979, Blair and Davis took over the arcade as a separate project in 1984, and seized the opportunity to uplift the tone of the local facilities.

Though the entire arcade can only take a maximum of five shops along one side with a

BOLD WITH BRASS

A new arcade in Piccadilly Circus has attracted public interest, writes Arthur Talbot.

restaurant on the other, the design tries to accommodate different shopfront images and so be adaptable to change.

Blair and Davis had hoped

that the units would be let to small specialty shops and a cocktail bar/fashionable restaurant. As the arcade opened prematurely on April 23, none of the shops had been fitted out and they were unenthralled by

Maxines restaurant, a development of an established steakhouse chain. But they are optimistic that their design will stand despite the "packaged" restaurant interior.

The most stunning feature of the mall is the crafted brassware, which accounted for some £500,000 of the total bill. The line of the mall is punctuated by specially designed open brass

columns, which branch out over the ceiling to hold the large Saturn-style high pressure sodium light globes.

Mirrors are used on the ceiling, behind the columns and on the end wall to give the illusion of a longer mall. But the reflections they throw up have a more interesting effect than merely enlarging the space, not least in hiding the fire sprinklers

set into the mirrored ceiling.

There is, of course, the inevitable marble floor, chosen for its durability and fire resistance, but the diamond design of dark and light marble is a far cry from the overall pinkness of the Trocadero.

According to Blair, designing for quality materials is not without its difficulties. The original concept for the

brass light supports was a rectangular section. But the craftspeople explained that this could not be done as the brass would buckle. In the end, the architects had to compromise and use a cylindrical section.

The Piccadilly Centre arcade has already attracted public interest. Until Swan & Edgar reopens on July 4, it will remain unfinished. But tube travellers arriving at the underground concourse are starting to creep in to see what new delights the West End has on offer.

Client: Resource Financiere NV.
Agent: Morgan Grenfell Laurie.
Architects: The Halpern Partnership.
Brass fabricators: Gravells of Sheffield.
Interior contractor: Willshiers Interiors.
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The "packaged" chain restaurant seen was a disappointment to the architects.



Open brass columns punctuate the mall.

Velvet underground

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Notes from New York



The concourse (level 2): A 1,000ft-long circulation space.

Dear Reader
THE Jacob K. Javits Convention Center of New York officially opened on April 9. The building is large — in physical size and its architectural ideas and urban intentions.

Designed by I M Pei & Partners, the 1.8 million sq ft, £486.2m centre occupies a 22-acre site on the West Side of Manhattan. Bounded by 11th & 12th avenues and 34th & 39th streets, the site is between the Hudson River to the west and derelict warehouses, railways and manufacturing industries to the east.

A replacement for the old New York Coliseum, the new Javits Center is intended not only as a venue for conventions and exhibitions, but also as a source of civic pride and revenue, and as a catalyst for the area's imminently-predictable real estate development.

Unlike the quintessential New York building type — the skyscraper — the centre is low: it has only four levels. Foundations, columns, beams and slabs on the lower exhibition level are all concrete. On the upper exhibition level, and in the public spaces, the structure is a steel space frame of 90ft × 90ft bays, painted grey. (The 90ft dimension was derived from the basic 30ft module of exhibition planning: two rows of booths 10ft deep, separated by an aisle 10ft wide.)

The space frame is supported on "champagne glass" columns of four tubular steel legs with an inverted pyramid welded to the top.

The frame itself is composed of a 10ft × 10ft superstructure,

a 5ft × 5ft grid, and 10.3in increments. The effect is of lace.

Reducing the depth of the 90ft clear spans from the rule-of-thumb 6ft to a modular 5ft allowed the space frame to form

precise 45 degree chamfers at bay ends and tops. These chamfers help minimise and articulate the long, low mass of the building.

Unlike the usual convention centre — an unlovely, undecorated shed — the Javits is sheathed in slightly reflective, grey glass. By day, the building mirrors the Manhattan skyline; by night, as the press says, it "glows with transparent beauty".

The centre's six exhibition halls extend across the building. They are large and very large: the three halls on level 1 total 230,000sq ft, with ceiling heights of 17ft-20ft; the three on level 3 total 410,000sq ft, with ceiling heights of 33ft-38ft. Both levels have the flexibility to be used either as three separate or one combined space.

To facilitate rapid erection and dismantling of shows, the convention centre's 12th Avenue (goods) side was designed with 50 covered loading docks on two levels and with six drive-in ramps for on-floor lorry access.

On the 11th Avenue (people)

side, a change in contour has been exploited to create a two-level entry/exit system. Beginning at the lower 39th Street end and cut south to 34th Street, a dedicated six-lane road way provides bus and taxi access to the 1,000ft long concourse.

Intended primarily for circulation, this 65,000sq ft public space also functions as a convention registration area.

Off 35th Street, at the high point on 11th Avenue, pedestrians enter immediately into the centre's great hall. An honori-

cate public space 270ft square and 150ft high, this "Crystal Palace" uses contemporary technology, the space frame, to

create almost Baroque effects of powerful massing and complex detailing. While the roof rises vertically in two tiers — first in a cruciform of four bays, then as a single lantern of one — the space extends laterally into the exhibition halls on level 3 and overlooks the concourse's long horizontal on level 2.

Still under construction, the galleria on level 4 is intended as an internal, urban "street"; eventually to contain shops,

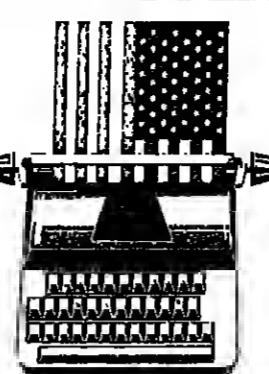
services and a restaurant extends from the great hall side to a second public space, the River Pavilion, and two outdoor terraces on the waterside. The view will be drop-dead. (One would have been possible directly from the "Carnegie Hall" out onto the Hudson, visually uniting the city and river within the convention centre's primary public space.

The convention centre includes a 30,000sq ft events hall (an adjacent 10,000sq ft "lobby"; and 13) rooms of various sizes, mostly to be equipped state-of-the-art video presentation system, the building provides full access for elderly and the handicapped (New York's Senator who died on March 7, wheelchair during the last of his life.)

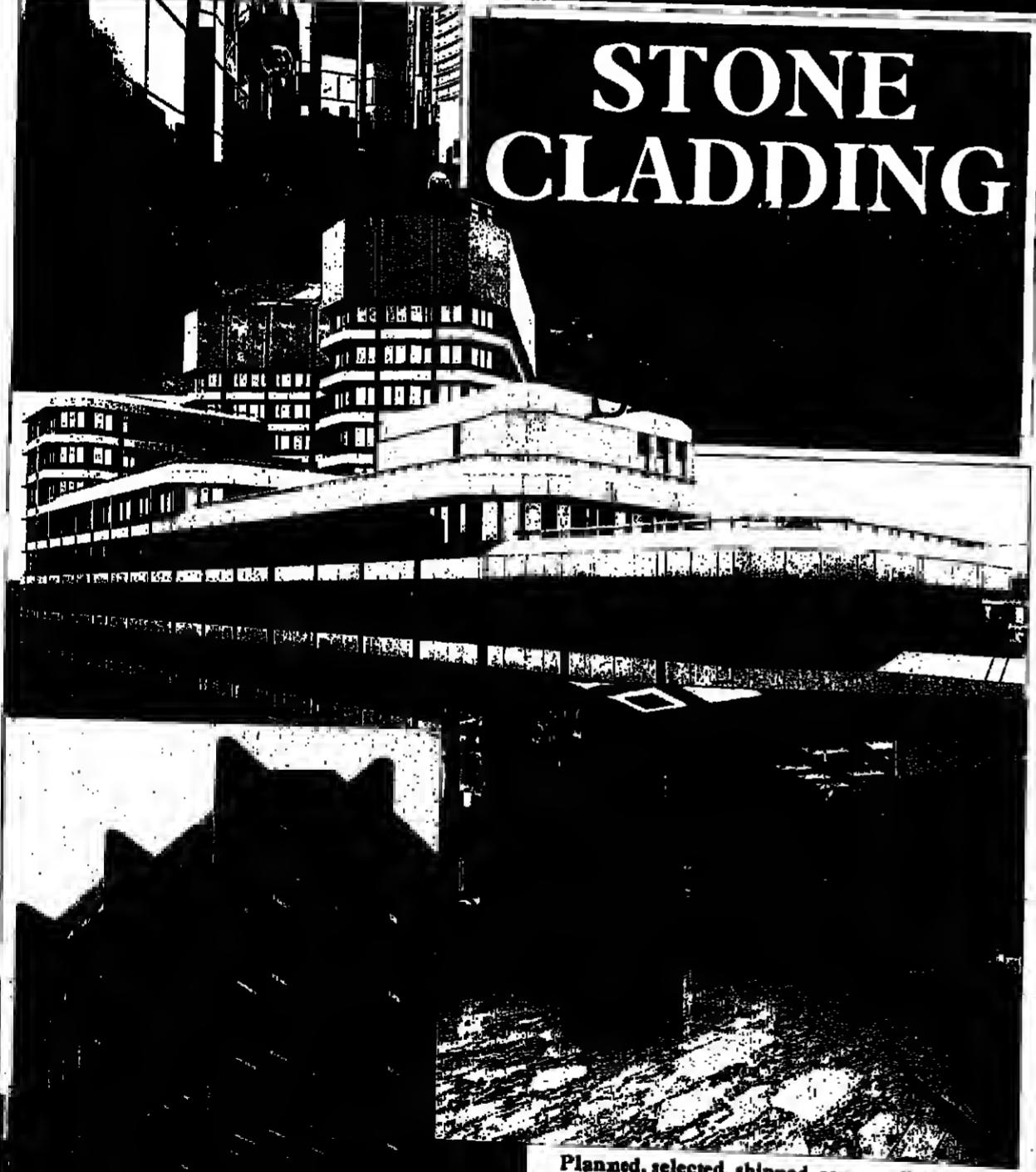
Directly across 11th Avenue from the great hall exit, one-acre outdoor plaza has been planned; landscaped fountains, trees, and a performance area, it will provide additional bus and taxi access to departure lanes, and behind the centre by an underground promenade. The plaza, moreover, will symbolise the centre's connection to the neighborhood (once known as Hoy Kitchen) whose renaissance is presumed to inspire. Plans are already being drawn for a 50-story hotel, a television production facility, and a yet-to-be-relocated Madison Square Garden.

Pei's office began designing the centre in 1979, at a time when New York City was in the throes of its fiscal crisis. Large because of errors in fabrication, the space frame nodes, completion was two years behind schedule and \$110m over the original budget. But now it's up, it's fine, and it's expected to generate \$1.5 billion of economic activity in its first year.

Sometimes, New York gets the architecture it deserves.



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The grid on the reflective, grey glass reiterates the space frame's major structural elements. The American edition of Oxford University Press, with the Society of Architectural Historians, is to publish a 70-volume series: *The Buildings of the United States*.

Modelled on Pevsner's *Buildings of England*, the series ultimately will comprise one volume for each of the 50 states, and one for each of 20 major cities. Written by local architectural historians, each volume will contain some 2,000 entries geographically organised, 400 photographs, maps, plans and glossaries, and a general essay on the specific region covered. Adolf K Placzek, librarian emeritus of Columbia University's Avery Architecture Library, is to be the series' editor-in-chief; William H Pierson, its co-editor-in-chief.

Funded in part by a \$200,000 matching grant from the National Endowment for the Arts, the first four volumes are scheduled to appear in 1983. Subsequent volumes are to be published at about five a year.

Commenting on the 46-volume Pevsner series, Placzek noted: "We Americans are

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Belfast

"It was Iam and we'd just dropped the Town & Country Planning Association director, David Hall, off at his central Belfast hotel; I was with the chairman and secretary of the Divis Residents Association.

Just a few streets later, as the stark outline of the flats loomed up, our cab was forced to stop as an unmarked red car pulled in front of us. Four heavily-armed RUC men ordered the driver and my hosts onto the road — they were ordered to turn all lights out and leave the doors wide open. I sat there till a torch was pushed into my face and the questions began.

I told them I was an architect working with the community of the flats — "Fine f***ing community that is," was the sarcastic reply. I sat and watched the arrival of another car and two armoured jeeps; now there were about a dozen RUC men in a wide ring around us, most of them with machine guns. Finally I was ordered out onto the road and questioned again — who I worked for, my home address, just exactly what I was doing in Belfast. I insisted I was an architect going about my legitimate business. Again, the sarcasm, "D'you know the sort

of people you're associating with?" I protested they were elected members of a community. In the background I could hear scraps of bitter conversation between my hosts and the RUC. "We'll get your lot"; "You tried in '69 and didn't succeed then". Finally, the senior RUC man glanced at me and said to the others, "At least Gerry Adams and I agree on one thing — Bring Out! Once they're gone we'll sort you lot out." We were kept in the middle of that road for well over half an hour. It was dark with no-one around except ourselves and a dozen armed men in uniform.

A while later, lying in bed in the Flats, I heard the joyriders racing the cars around the asbestos-strewn tips surrounding Divis but I wasn't interested. I'd seen it all before. At 5am I was woken by the clatter of the helicopters and went to the window. It was an eerie sight seeing the whole complex lit up by the powerful searchlights of the choppers at that hour of the morning. A couple of snipers sniped down below and I looked up at the long-range cameras in the army post on top of the Divis Tower.

Two and a half thousand people live in Divis. Some of them have said to me: "It's a

punishment block, we're being punished." If what I have experienced is typical, then I can understand their feelings.

As the native Irish fled to Belfast from the famines of the west in the 18th and 19th century they were denied residence inside the city and settled in a swampy bog and cattle pound outside the walls through which ran a clear stream. The area became known as the Pound Loney (Lonn, Irish for "clear water"). The Loney, an impoverished but vital working-class mill community, existed right up to 1966 when it was demolished to prove the way for the Divis Flats complex.

The Loyalist-controlled Belfast City Council instructed the Northern Ireland Housing Trust, which commissioned Luings who used the French "Seers" system to build 12 eight-storey, interconnected slabs and the 19-storey Divis Tower, containing 795 units and 2,833 bed-spaces.

It is argued by the authorities that it was the wish of the community to have Divis built as a replacement to the slums of the Loney; in reality the pressure came from the financial incentive to both Government and large contractors to build cheap, quickly-erected, factory houses.

Street plan of the old "Pound Loney" area, demolished to make way for...

...the Divis estate. Drawing by Lewis Walker.

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Belfast

The Divis estate in Belfast has proved not just a conventional housing disaster story, but a social, economic and political nightmare, says Brian Anson.

Environmental Health Project and the Divis Residents Association sought to build up a campaign based on hard evidence that the Flats were irredeemable.

As an umbrella organisation for all the projects the Divis Joint Development Committee was formed. Divis never lacked research — it had fast become a ready-made subject for the dissertation, the thesis and sociological and anthropological study. As one resident said, it was being "surveyed to death".

The

TCPA's Mobile Planning Aid Unit visited Divis in the summer of 1985. At that stage the Housing Executive was offering the demolition of two further blocks, but only on condition that the community accepted full-scale rehabilitation of the rest of the complex. As the *Irish Times* pointed out: "The position of British Ministers is that no improvement work of any kind will go ahead unless refurbishment is accepted." In the view of the residents' association this was blackmail.

It seemed to us in the TCPA Planning Aid Unit that Divis was caught in yet another trap. Though notorious and gaining much publicity in the Irish press,

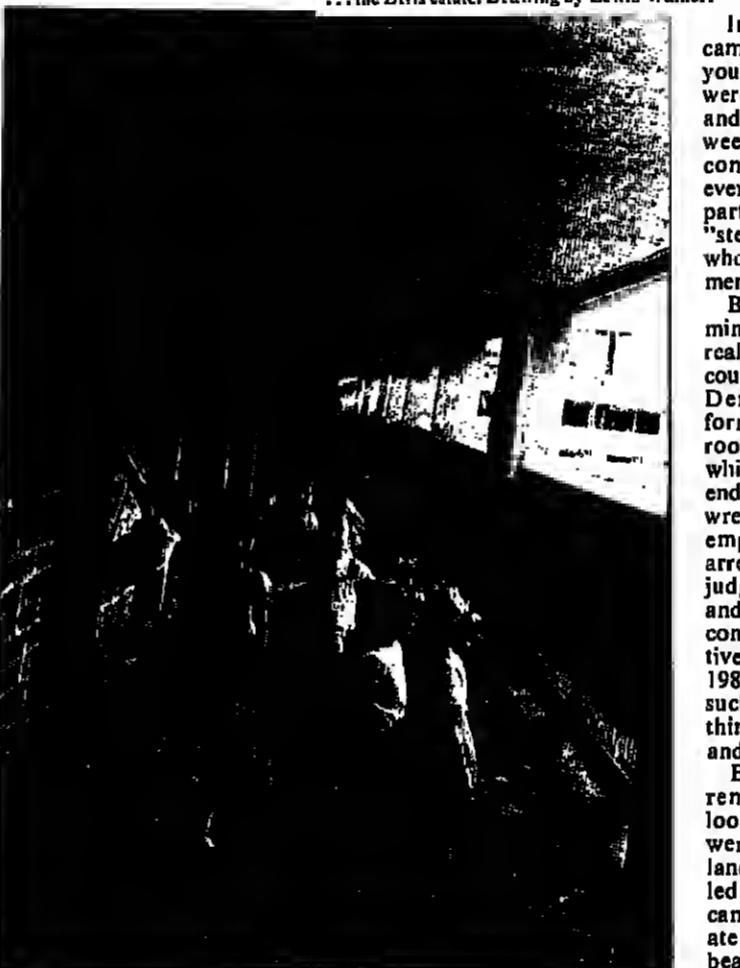
just what it was like to live in Divis."

Since the exhibition last November (which has now been seen at three other venues) a number of significant things have happened. The Northern Ireland Office and the DoE (NI) have responded hysterically (and sometimes abusively) to the policy statement, accusing the TCPA of professional irresponsibility and political naivety — particularly as regards our linking the intolerance of the Flats with the constant military presence in and around Divis.

Our response is that it is precisely this link which makes Divis the worst housing environment in Western Europe. We invited anyone to meet us and a meeting was subsequently arranged with the authorities. We made it clear that representatives of the Residents' Association would attend any such meeting.

At the last minute, the meeting was cancelled with the authorities arguing that "the future policy for Divis has been approved by the minister. It would be quite inappropriate for officials to discuss with the TCPA and representatives of Divis, proposals for the Flats".

continued page 20



In due course a "clean-up campaign" was organised by a young priest and young and old were exhorted to "lend a hand and clean up the complex in one week". This was followed by a community festival in which even the local IRA units played a part, warning they would take "stern measures against anyone who interfered with the enjoyment of the people in any way".

But

the more radically-minded within the community realised that a disaster like Divis could never work and the Divis Demolition Committee was formed to harness the deep-rooted anger of the community which really wanted to see the end of the Flats. The group wrecked flats as they became empty until its leaders were arrested. Though convicted, the judge imposed a nominal fine and took the opportunity to condemn the Housing Executive, saying: "It is terrible that, in 1981, I have to sit and listen to such a state of affairs. Something must be done about Divis, and soon."

Everything about Divis was reminiscent of a prison. It looked like one, the "inmates" were under constant surveillance, armed "warders" patrolled the corridors; the clean-up campaign was only a desperate attempt to make the prison bearable, with even the IRA having to support this reformist action. Finally, the prisoners attempted to destroy the prison and were arrested for their pains.

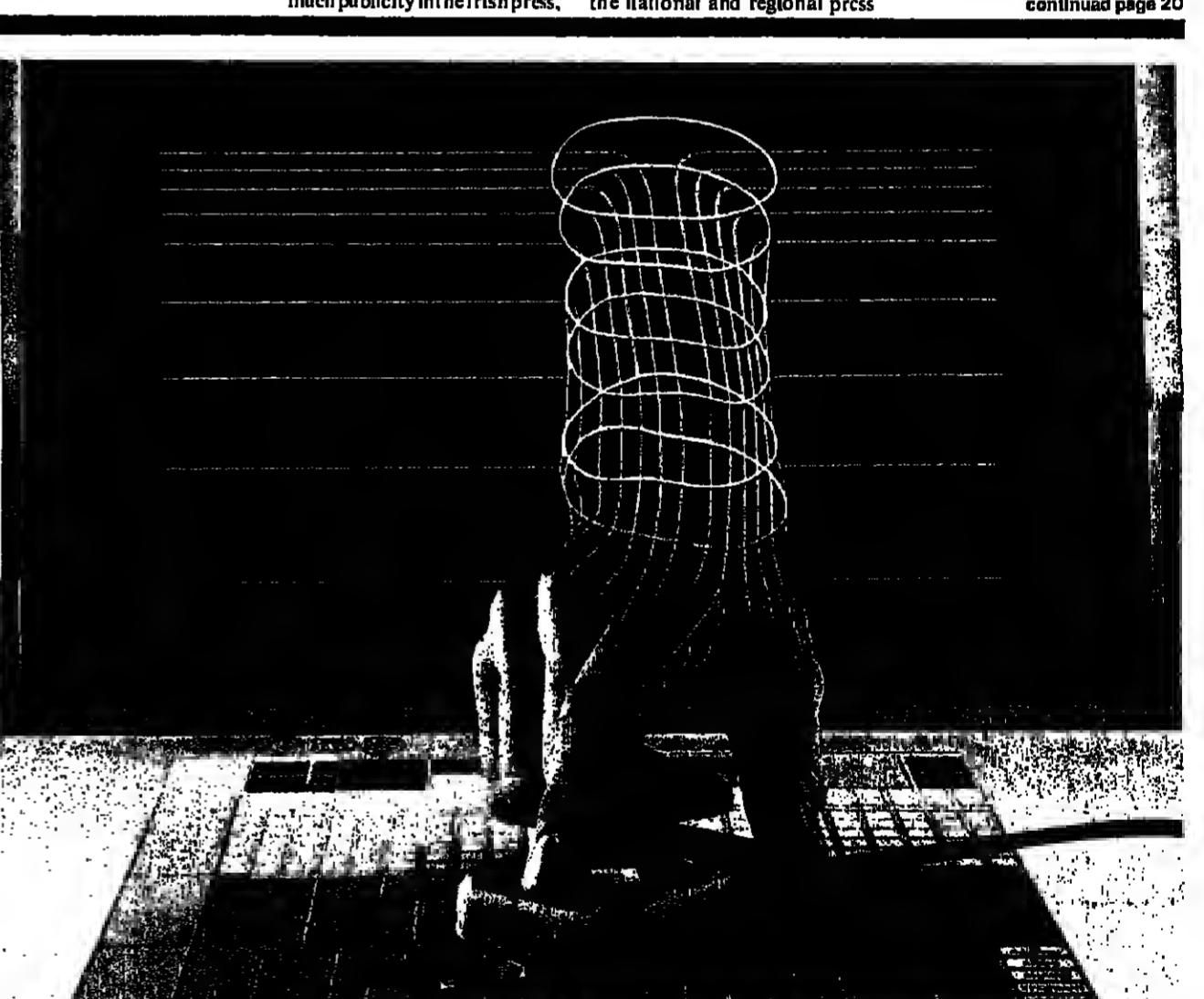
Under mounting pressure the Northern Ireland Housing Executive agreed in 1982, to the demolition of four of the blocks (though, in the event, the Westminster-controlled DoE would allow only two) and offered a substantial renovation of the rest of the complex. The residents, accepting demolition, refused to countenance major refurbishment, arguing that to do so would condemn them and future generations to the complex. Nothing happened for two years, when the two blocks did go, though leaving behind a dangerous asbestos problem.

Under

In 1974, only two years after completion of the complex, the Lower Falls Residents Association was formed at a meeting in Divis, making it clear that, even at that early stage, the majority didn't want to go on living in the flats. But a whole community cannot just get up and go and the first actions taken were an attempt to rectify the structural and mechanical faults in the complex, plus protests at the constant harrassment of the Divis people by the British Army. The lack of maintenance was a key issue — Divis virtually had none in those particularly violent days.

In

The Divis Play Project; the Divis Education Project and the Divis Drop-In Centre were among those which tried to meet the lack of facilities in the complex and counteract the infamous "name" which Divis had inevitably acquired. The



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Punishment block

from page 19

They suggested a private meeting with the TCPA. Our response emphasised that it is central to the whole TCPA philosophy that the community is fully involved at all stages of the planning process. We asked the authorities to state clearly if a meeting would be out of the question were Divis residents to be present, and we suggested that there would be little point in meeting at all if the future of the complex was beyond dispute.

The reply was ambiguous with the DoE agreeing that there was little point in meeting as "future policy on Divis is the responsibility of the Northern Ireland Housing Executive and it would be quite inappropriate to enter into discussions with third parties". However, they informed us that they had restarted talks with the Residents' Association. In this context it is worth quoting the words attributed to the chief executive, Victor Bleasdale, in a recent news article. Bleasdale has now dropped his insistence that the demolition of two more blocks must be linked to the acceptance of a major rehousing scheme.

He states: "We will talk to the residents again without conditions being set, but we will talk to them here in Belfast, not at some political debate in London". This is a clear reference to the TCPA and they have made it plain that the only reason they wish to meet us (if at all) is to "correct some of the errors" in our policy statement; they do not seem interested in a tripartite meeting involving the residents and their ally, the Town & Country Planning Association.

But parallel with these negative developments, positive things are happening. The two blocks are to be demolished without conditions and, on an international level, Divis seems to be "on the agenda". In any press story on the much-publicised "Reagan aid package" for Northern Ireland, Divis seems to be the only issue mentioned by name. The Irish Press in February revealed that "Government representatives stressed the need for rehabilitating the notorious Divis Flats in Belfast".

A month later the Guardian

ETERNIT 2000

STREETS AHEAD



The exhibition was created by TCPA

Planning Aid Unit and staff; outside

assistance Peter Moloney, Paul

Fordyce, Lewis Walker, Alan

Gelley, Ronald Scott, and the Lower

Hazards Centre. Storyline by Brian

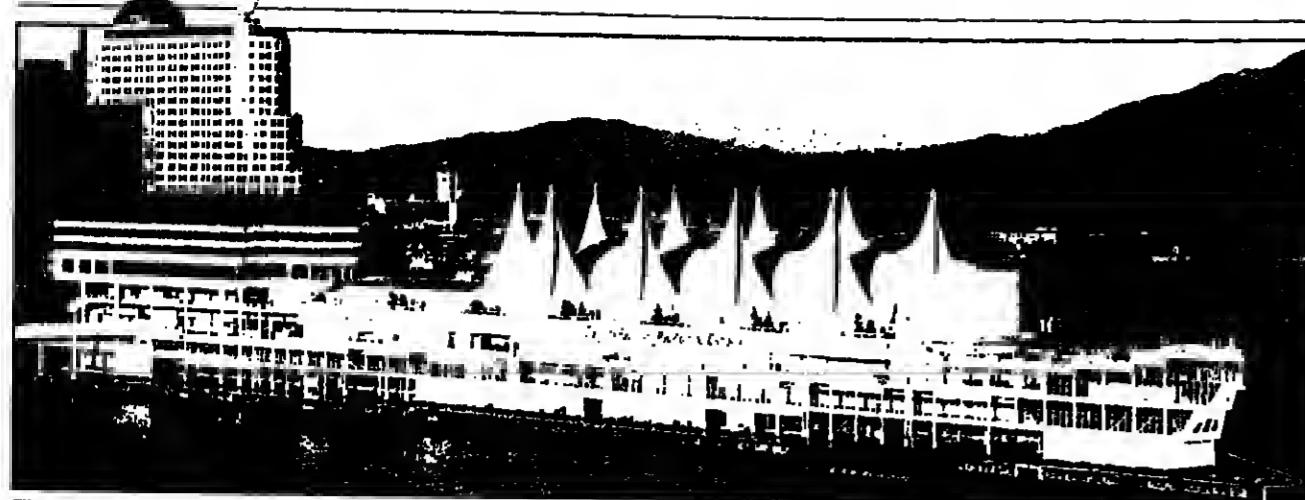
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EXPO 86 has enjoyed the highest advance ticket sales of any world's fair. It looks impressive; it feels efficient.

It is also a billion dollars worth of construction — 62 pavilions, 12 plazas, 100 food and merchandise buildings, five theatres, four gates, five megalithic amusement rides, and five public transport systems built on two prime locations in downtown Vancouver. The main 50ha site lies along 2.7 miles of the city's False Creek waterfront, connecting by Skytrain to the nearby Canada Place complex, Expo's piece de resistance.

This special category world's fair (not a trade fair), with its themes of Transport and Communications, opened its gates on May 21 to the first of more than 17 million visitors expected in the six months. Traditionally, world's fairs, with the opportunities they bring for outrageous and innovative designs, have provided major platforms for architectural debate. And Vancouver's offering, the 83rd fair since the Great Exhibition (Crystal Palace) in 1851, should not disappoint us on that score.

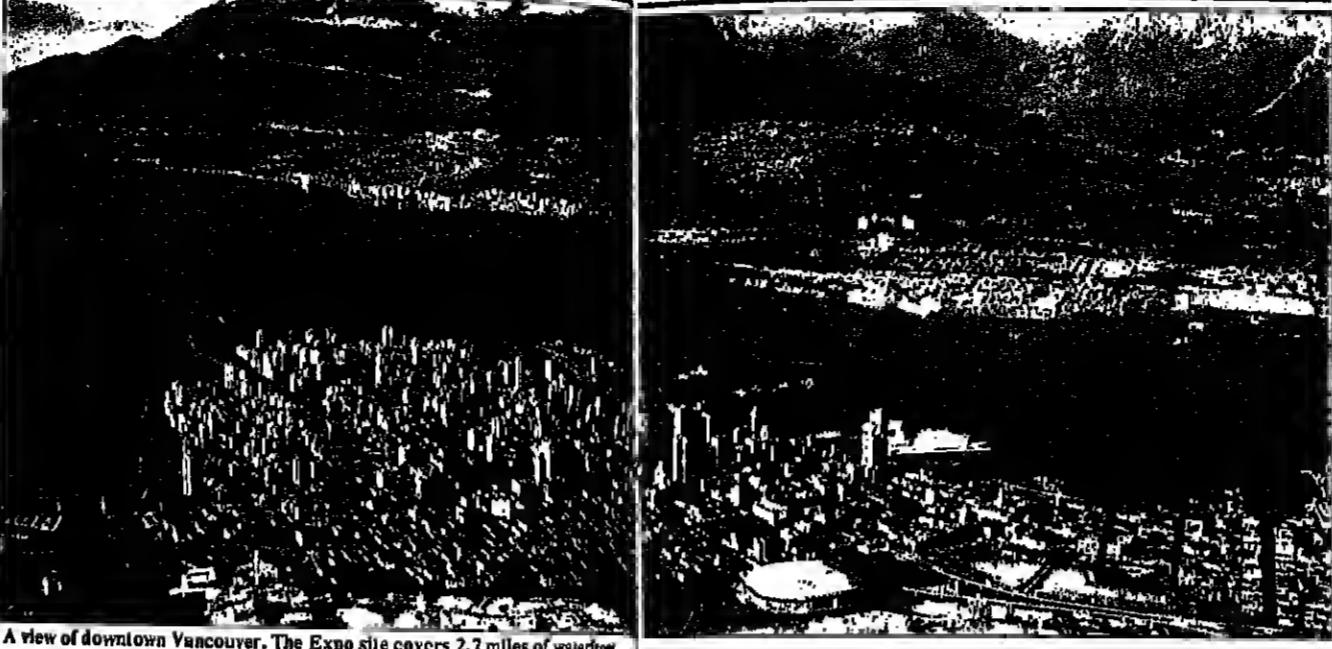
For the past three years Expo has carried the British Columbian construction industry and pooled the design talents of one of North America's most beautiful cities. But a hard-nosed, seven-year commercial preparation, boasting more corporate finance than the Los Angeles Olympics, does not come off without casualties. For many eminent figures in Vancouver's cosmopolitan architectural community, Expo has proved more the battlefield than the fairground.



One of the seven monorail stations.

E 86 CANADIAN CLUB

Michael O'Toole reports on the 1986 World's Fair which opened in Vancouver last week and continues until October 13.



A view of downtown Vancouver. The Expo site covers 2.7 miles of waterfront.

The sheer volume of work and diversity of creative influences have led to some serious conflicts. The issue, it seems, is not so much design style as design per se, and its suitable role in a mini-metropolis which will disappear after only six months. In the oft-quoted words of former Expo 86 president Mike Bartlett (of Wonderland fame): "At a world's fair you gotta do a get 'em fed, and scare the shit out of 'em. Then they'll be happy."

Philosophical differences aside, the site has emerged on time, roughly on budget, and with a better than average chance of doing credit to its Pacific host (15 out of the last 18 Expos have suffered considerable financial loss). And with tough management led by multimillionaire Jim Pattison, Expo 86 has so far remained free of the embezzlement scandals which plagued Canada's last exposition, in Montreal in 1967.

The linear formal, served by a central 30 metre-wide concourse, is divided into six colour-coded zones. Apart from theme plazas there are no thematic demarcations, but across the board four principal architectural categories can be identified:

- The core of official Expo structures — theatres, amusement rides, food and merchandise buildings, first aid centre and theme pavilions.
- The showpiece "legacy" buildings.
- The international exhibition pavilions — multi-configuration modules which serve the 52 foreign participants (some of the smaller nations share).
- The seven corporate and nine Canadian provincial pavilions (all commissioned privately by the bodies concerned).

Of the four, by sheer weight of numbers, it is the ubiquitous modules which dominate the site, their angular exo-skeletons giving Expo 86 the "look" for which it will be remembered. Conceived by the fair's original

chief architect, Bruno Freschi, and modified by structural engineer Bogie Babicki, the modular system is designed simply to provide a flexible pavilion shell to the international participants (an International Bureau of Expositions requirement). Individual nations, which lease modules by the unit according to their needs, can then bring in their own designers to create distinctive pavilions.

The system comprises four basic parts — concrete foundations, tubular steel frame, wood

roof panels and wood wall panels. The frames are arranged in a two-directional double grid of 15m and 3m to form pavilions. Up to nine modules can be joined together column-free. Larger buildings (up to 16 units) require one central column cluster. Columns are made from Paraflex, one of the strongest available wood-based building materials — composed of long wood fibres and a waterproof adhesive.

Maximum interior clear height is 7.2m (13.2m with the roof in the sloped configuration).



Expo's sleek monorail.

\$300 million Canada Place complex just under a mile from the main site, the pavilion forms the wind-blown sail of a multifaceted design representing a giant ocean liner.

The effect is created by Teflon-coated glass-fibre fabric, stretched on a network of steel cables and anchored on 10 27.8m steel masts. The pavilion was designed by Toronto-based architect Eberhard Zeidler (also involved in the Ontario Pavilion), using a fabric produced by Birdair Structures Incorporated of New York. After

Incorporated into the 3ha

Expo pavilion will be refitted as a trade and convention centre.

The other legacy buildings all lie on the main False Creek site. First to appear in its full glory was Expo Centre, the principal symbol of Expo, which opened for public preview from May–October 1985. This 17-storey building with a 40m diameter geodesic dome, like the modular system, was carried off by the Bruno Freschi/Bogie Babicki combination. It features a 500-seat Omnimax film theatre, with the largest screen of its kind in the world, and has total interior space of 7,695sq m. Located at the east end of the creek, this \$20 million showpiece is built over water on piling and decking. The dome contains 240 stainless steel panels and 130 strobe lights.

Another showpiece, towards the west end of the site, is the Roundhouse, an historic 19th century locomotive service facility which has been transformed into a theme pavilion addressing "The Golden Age of Ingenuity" (one of the exhibits is Stevenson's Rocket). Structural adaptation of the building was designed by Norman Hotson Architects of Vancouver. Interior refurbishment and exhibitor design fell to the Czechoslovakian outfit Studio Shape, with spectacular multimedia results. The concepts include gigantic projections of vehicular mechanisms, including a combustion engine which contains a film theatre for 150 standing viewers.

But the most elaborate building on the main site, appropriately, is the host British Columbia Pavilion, part of the three-building, 4ha BC Place Complex. This prestigious architectural commission was won by the Vancouver-based Waisman Dewar Grout Carter partnership, which, with five major commissions, has been one of Expo's foremost creative influences.

The main pavilion building, Discovery BC, is a 30m high glass gallery containing 5,000sq m of exhibit space, a 500-seat Showscan theatre, and a 250-seat restaurant. The structure is a latticed steel truss frame tied to fifty 60cm diameter columns (pre-built by Cannon Inc.). The building contains 30,000sq m of aquamarine glass and 500 tonnes of tubular steel. The three main exhibit areas include four "Discovery Trees", cylindrical towers ranging to 18m tall containing elevators to take visitors vertically past a series of special exhibits.

The two adjacent buildings, Challenge BC and Showcase BC, principally of functional, administrative use, provide another 3,600sq m of exhibit space, a triple-screen film theatre and a business conference and information centre.

Many state-of-the-art passive systems are employed in the complex, controlled by a Delta 5200 computer. These include security (fire alarm, card access, closed-circuit surveillance), lighting and heating/cooling. Heat-activated blinds, operated by solar sensors linked to the computer, are installed in the upper portions of the main glass pavilion.

In the centre of the complex is the Plaza of Nations, used for major ceremonial occasions during Expo.

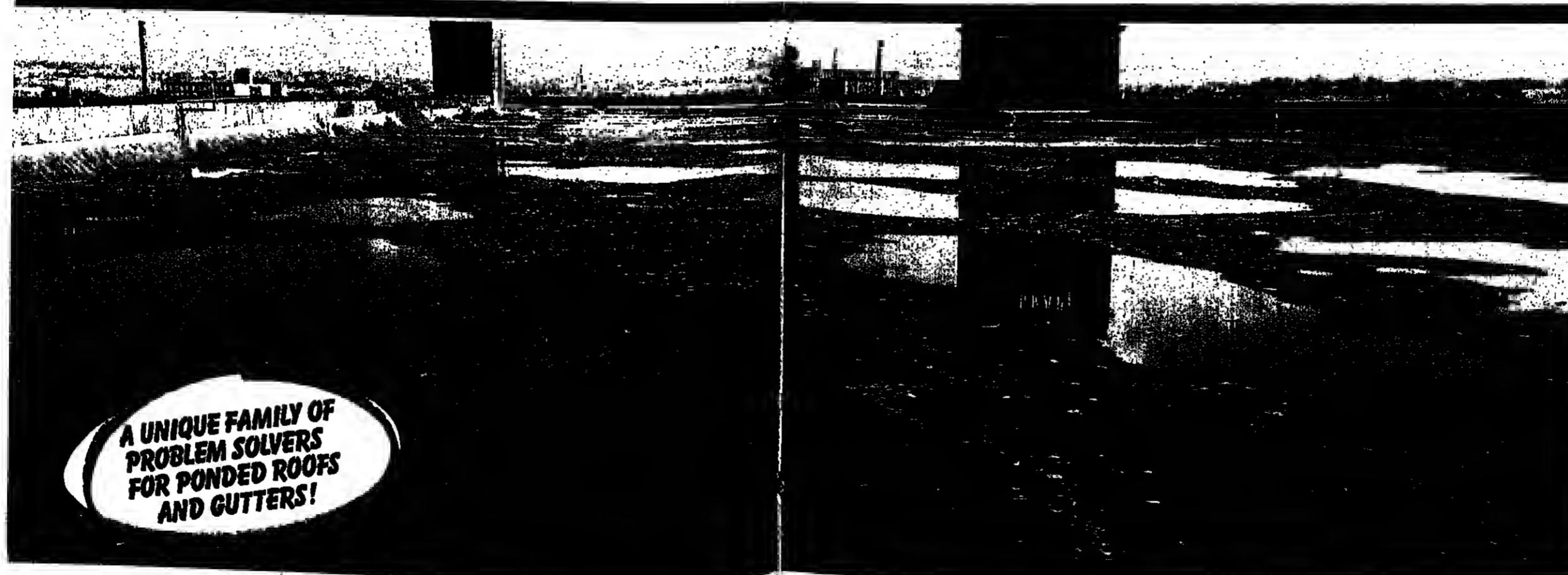
It holds 10,000 and is covered at a height of 21m by a huge space frame canopy containing 21,000sq m of aquamarine glass and 4,500 struts.

The \$34 million BC Place Complex is seen as a major factor in the long-term redevelopment of the area, providing an entertainment and office focus. Proposals for the future use of the BC Pavilion include a new science and technology centre.

Waisman Dewar Grout Carter also designed the second of Expo's two them pavilions, Ramses II, which houses an 80-piece collection of 18th dynasty Egyptian treasures. Anomalous to the fair's focus of transport

continued page 28

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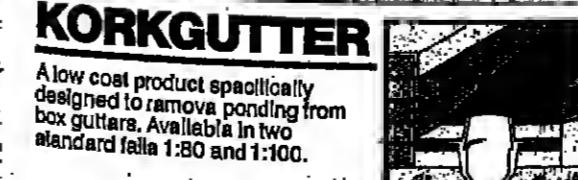
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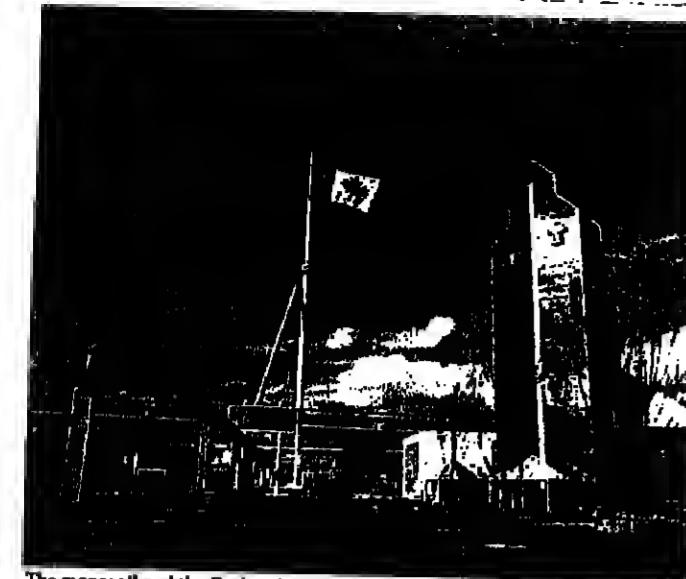
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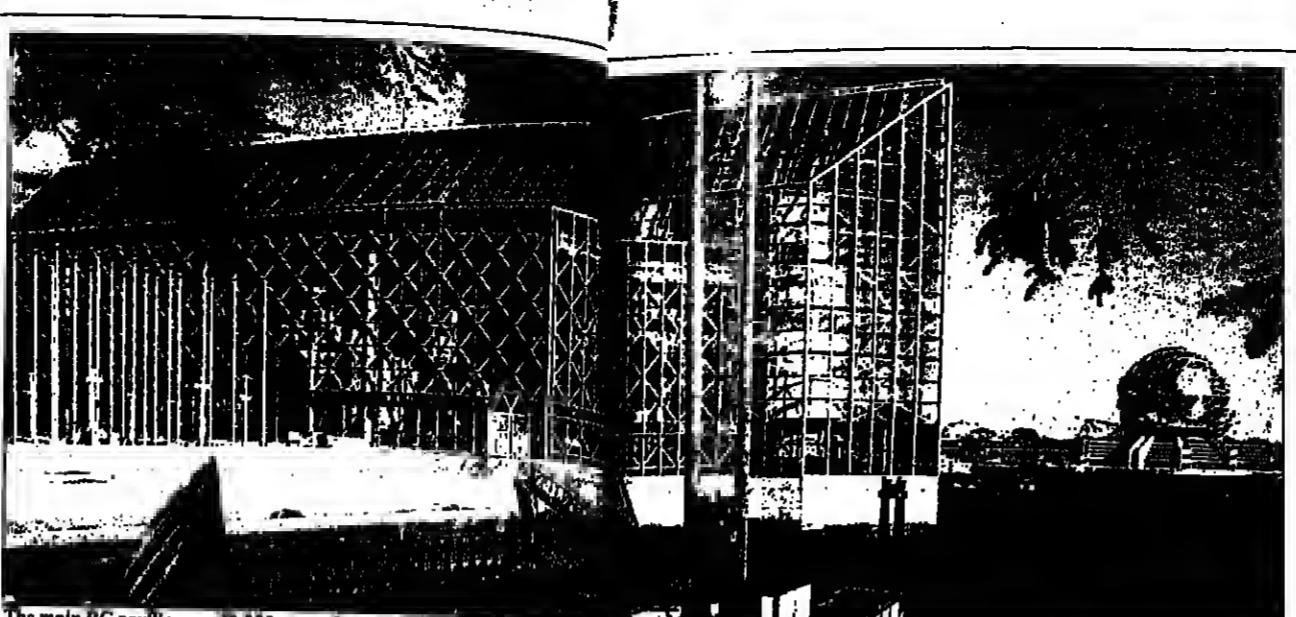
Creative director Ron Woodall took a year to understand what was going on.



The monorail and the Saskatchewan Pavilion.



The central concourse.



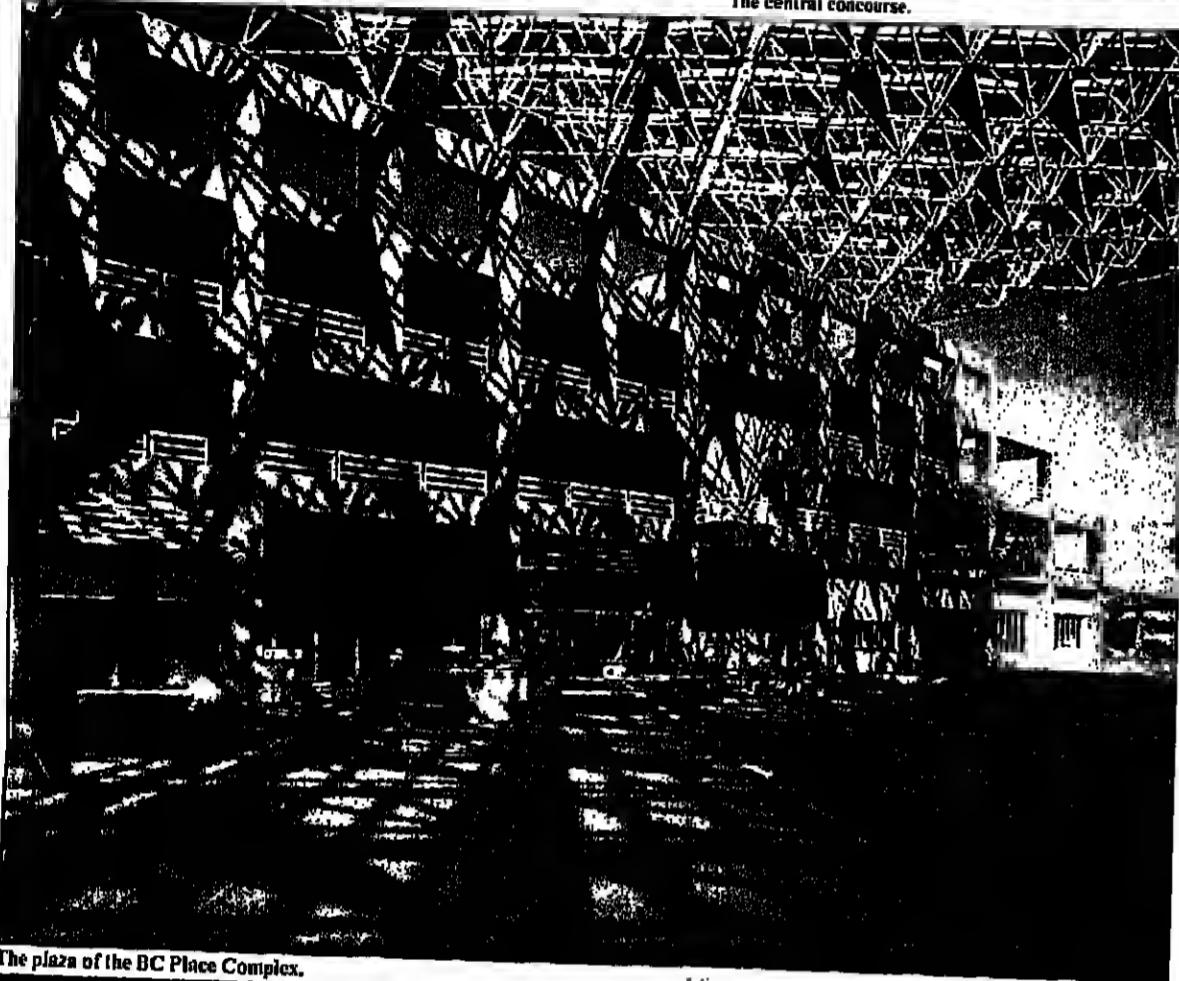
The main BC pavilion... 30,000sq m of aquamarine glass.



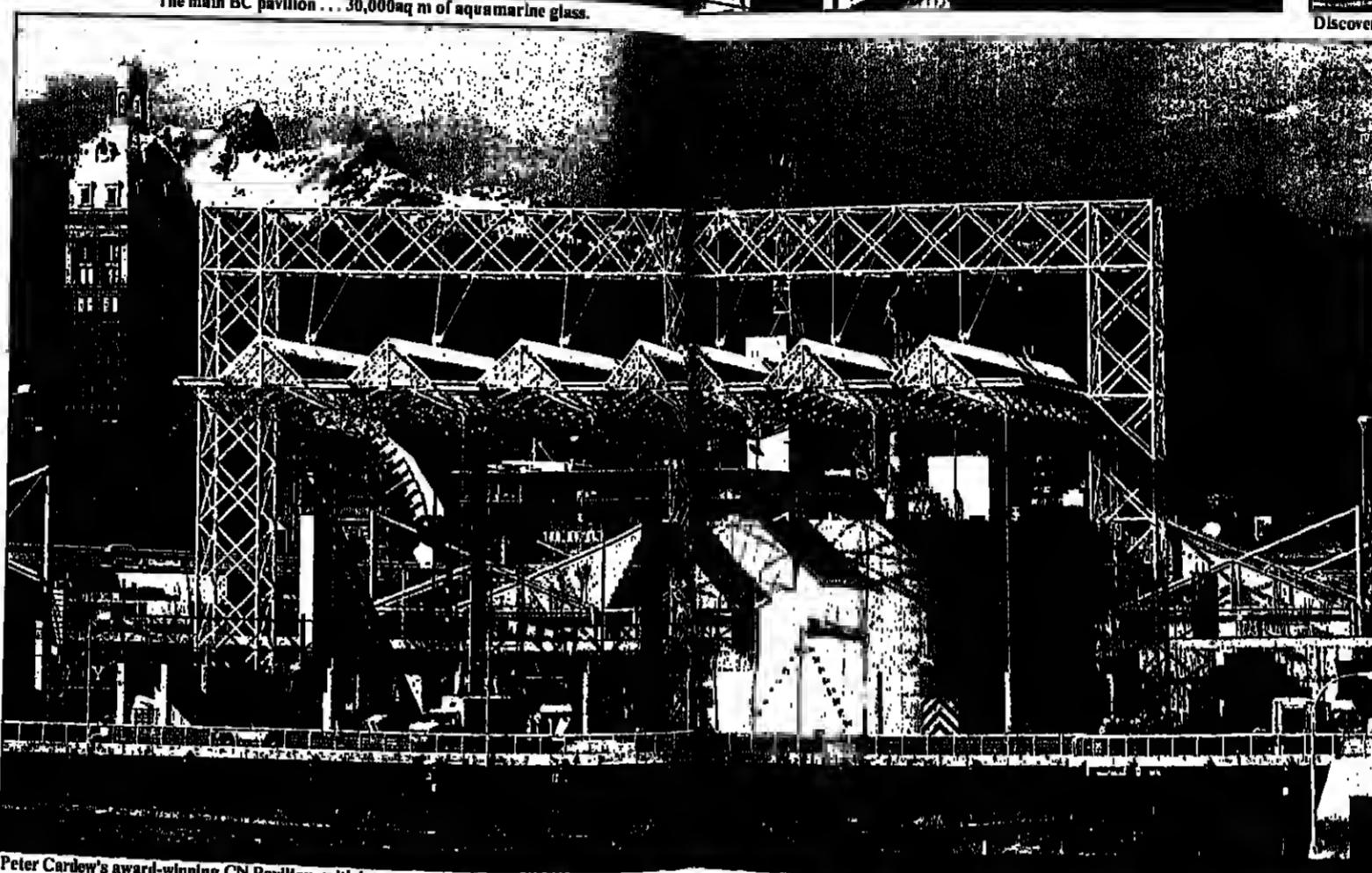
Discovery BC in relation to the Plaza of Nations.



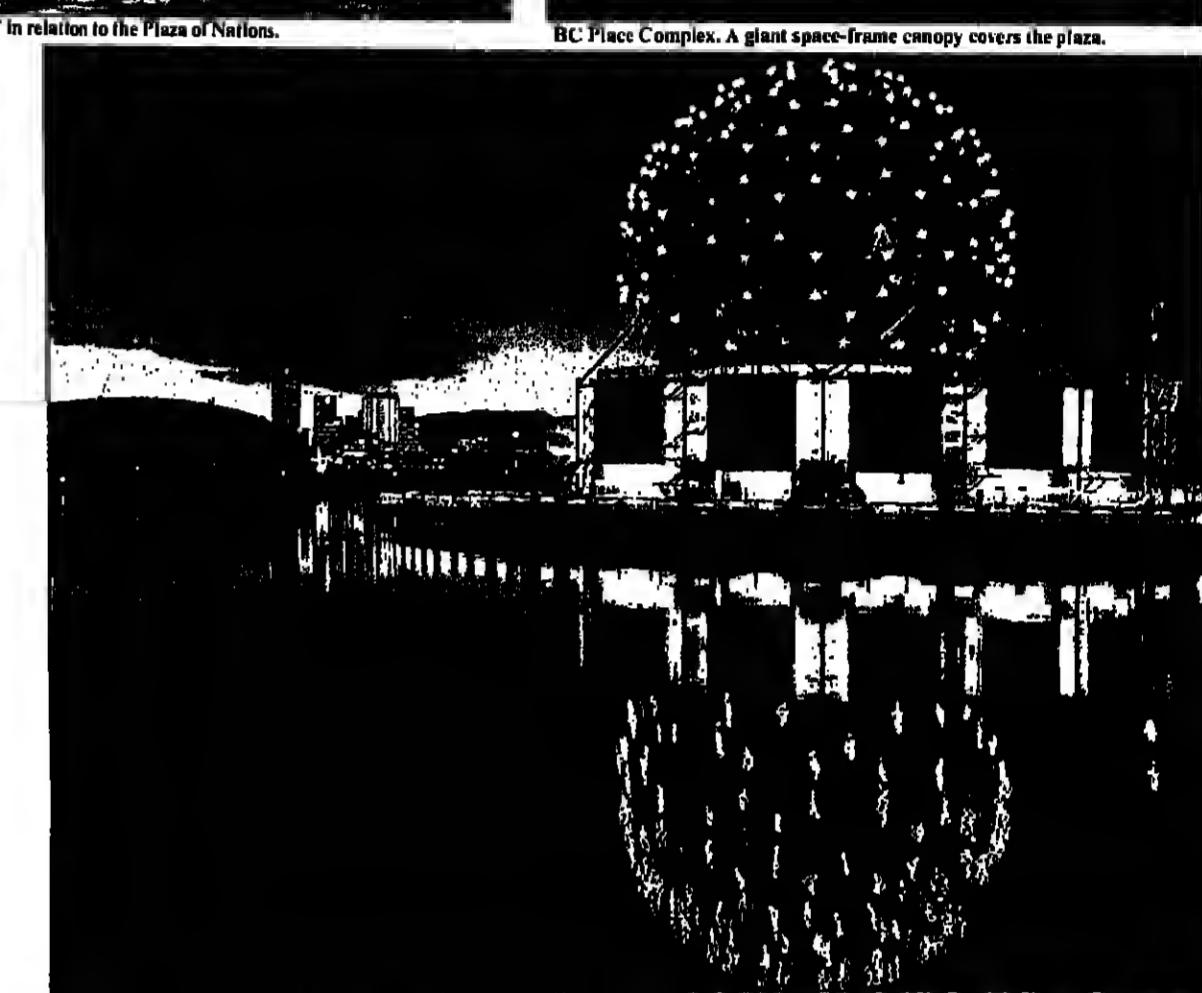
BC Place Complex. A giant space-frame canopy covers the plaza.



The plaza of the BC Place Complex.



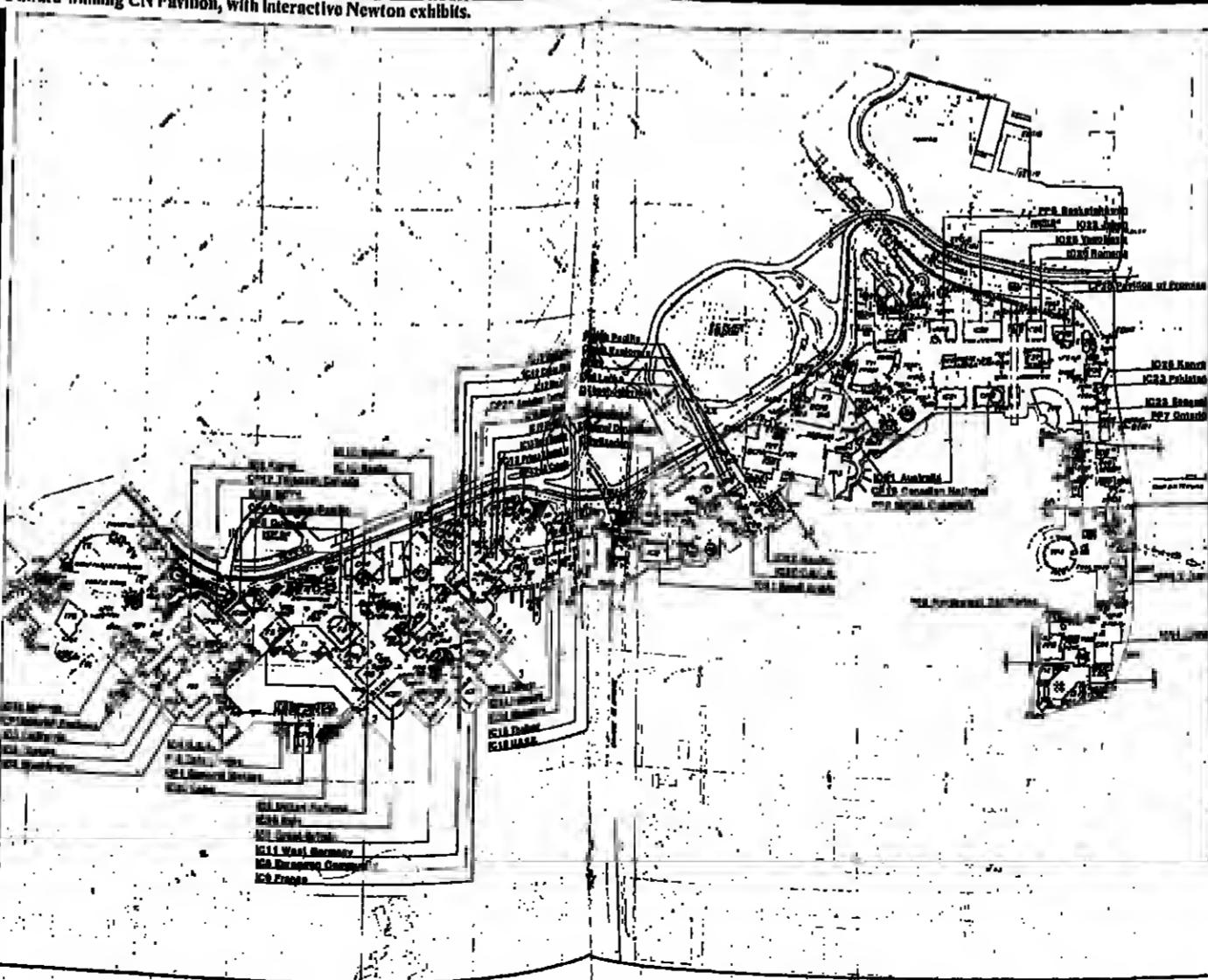
Peter Cardew's award-winning CN Pavilion, with interactive Newton exhibits.



Bruno Freschi's geodesic Expo Centre, the principal symbol of Expo 86.



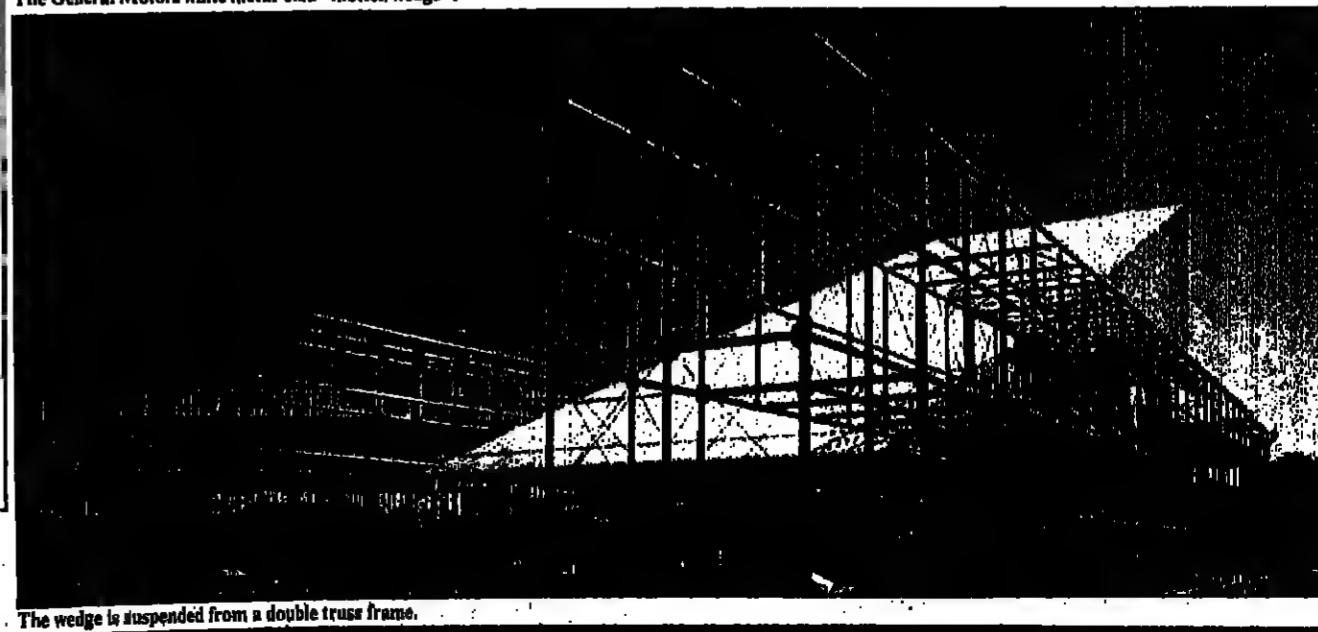
Highway 86, a piece of road sculpture designed by Site Projects of New York.



The Expo site plan



The General Motors white metal-clad "motion wedge".



The wedge is suspended from a double truss frame.

The Ramses II Pavilion which houses a collection of Egyptian art treasures. Designed to represent a half-excavated temple.

Expo 86



The man-made lagoon. Left to right — the Quebec Pavilion, the United Nations Pavilion, the Italian pavilion and the Cuba Pavilion. The Air Canada gondola runs overhead.

from page 25
and communications, this is also the most eye-catching pavilion on the site. It was inspired by the famous Abu Simbel temple in southern Egypt (the greatest architectural achievement of Ramses II's era) and aims for the half-excavated look. The \$2.2 million building and its decorative pillars are constructed of isogen mesh-covered plywood, giving the impression of sandstone.

WDCC's three remaining commissions were for corporate clients, who have enjoyed design carte blanche, restricted only by

zoning and safety regulations. Canadian Pacific, Canada's largest private company, celebrates its centennial with one of the costliest temporary pavilions, an imposing "black box" design incorporating two large theatres and a lounge for first class CP passengers. McDonalds Canada, with several conventional restaurants on the site, has also commissioned a \$2.6 million floating restaurant — "Maccharge".

And General Motors Canada offers us a quirky white metal-clad "motion wedge" at the west end of Expo's man-made lagoon.

The structure is suspended on a double tubular truss frame with a single pin connection every 2.5 metres. Visitors queue inside one arm of the frame into a 150-seat theatre, then pulse out through the other.

Across the rest of the site dozens of other structures cry out for attention: the blue iceberg Northwest Territories Pavilion; the waterside amphitheatre of the Ontario Pavilion; the 4,300-seat Expo Theatre with its dramatic heavy timber roof of spanning 100m; and the delightfully demented Highway 86, a mammoth sculpture which

runs the whole width of the narrow site, designed by Site Projects Incorporated of New York.

With so much design activity

it is perhaps surprising that only

one building has been honoured with a major architectural award.

English born architect Peter Cardew won the 1985 Canadian Architect's Award of Excellence for his imaginative CN (Canadian National Railways) Pavilion. A "no walls"

tension canopy structure with three-point gantry suspension, this \$1.8 million pavilion is designed to be reminiscent of the

great 19th century railway terminals, while blending structure, theme and display for exposition purposes.

The main section of the pavilion, which can be seen from all around the Expo site and entered from any direction, is made up of four 10-metre high exhibits which demonstrate Newton's four laws of motion — uniform, circular, accelerating and oscillatory. Visitors activate the giant exhibits, playground fashion, and tinker with video touch screens for further information on the laws of motion.

The other part of the pavilion

is an enclosed cylinder containing

a multi-media auditorium.

In designing this, Cardew has paid particular heed to keeping visitors entertained while waiting for the next show. Rather than a pre-show anteroom, he has opted for a raised open-air ramp which gives the queuing public an excellent view of the interactive exhibits, the rest of the Expo site, and Vancouver's picturesque backdrop.

Modest on his own achievements and eager for his adoptive city's exposition to succeed, Cardew is nevertheless disappointed with the fair's lack of visual daring. "The failure is

really on the part of British Columbian architects rather than the Expo Corporation. At the same time, too much dependence is placed on the internationals to do something exciting with their pavilions.

And the legacy aspect is a tragedy. There's a billion dollars

worth of construction out there, all but a fraction of it going to be scrapped."

Fair comments, but then

designing Expo is not the

rationally exercise one might

expect. For those at the helm it's

been a nerve-wracking process,

the terms of reference contin-

ually changing. When ideas

were first mooted in 1978, the

event, to be called Transpo, was

seen as a modest-scale Pacific Rim trade fair which would complement Vancouver's centennial celebrations. Since then

it has grown into a fully-fledged

exposition involving 54 nations

(Britain was the first to sign up in 1981). Additions to the roster of states, provinces and corporations as well as nations, have

occurred in dribs and drabs, the most recent being Malaysia last February.

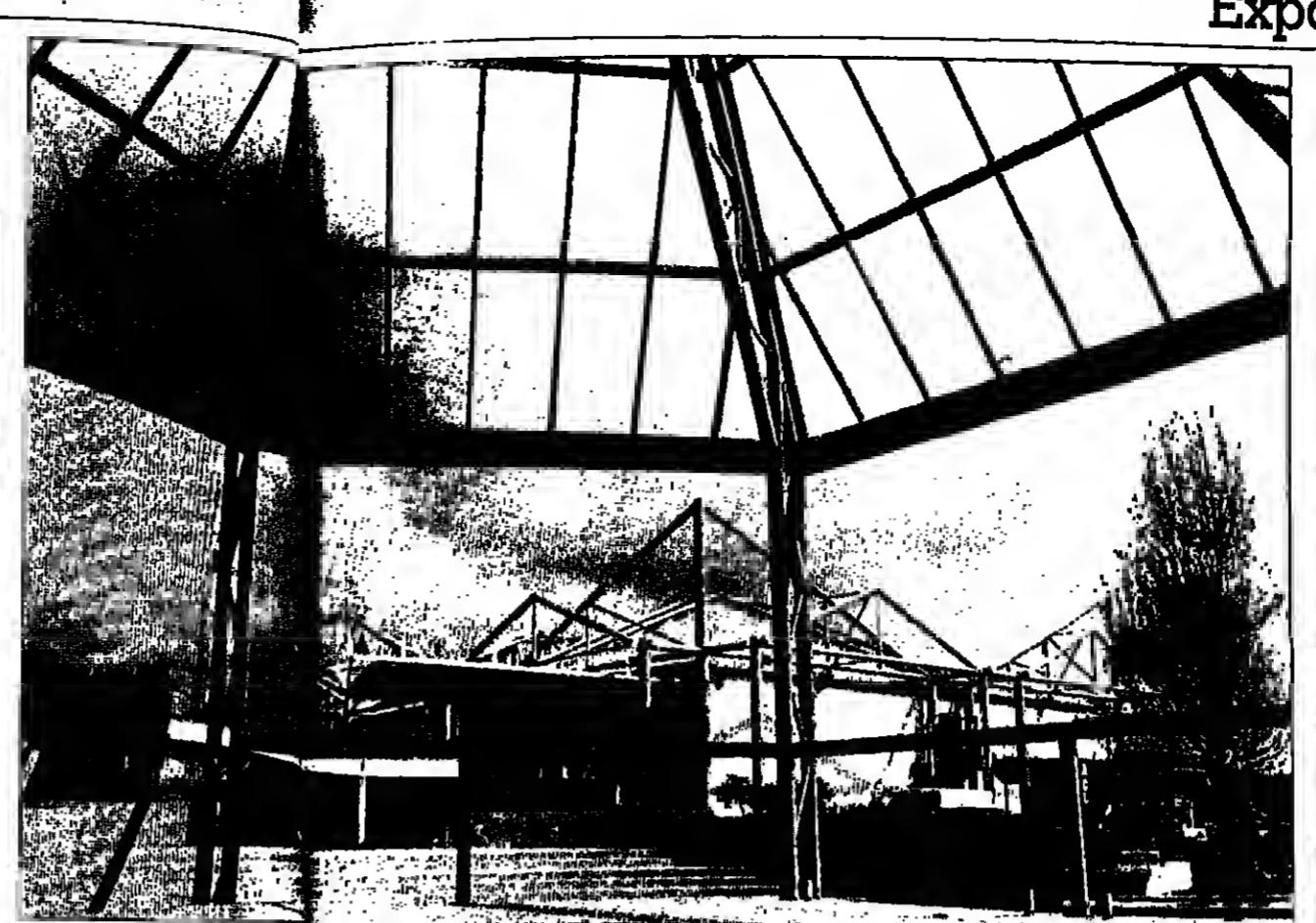
Given such progressive ex-

pansion, all plans were at best

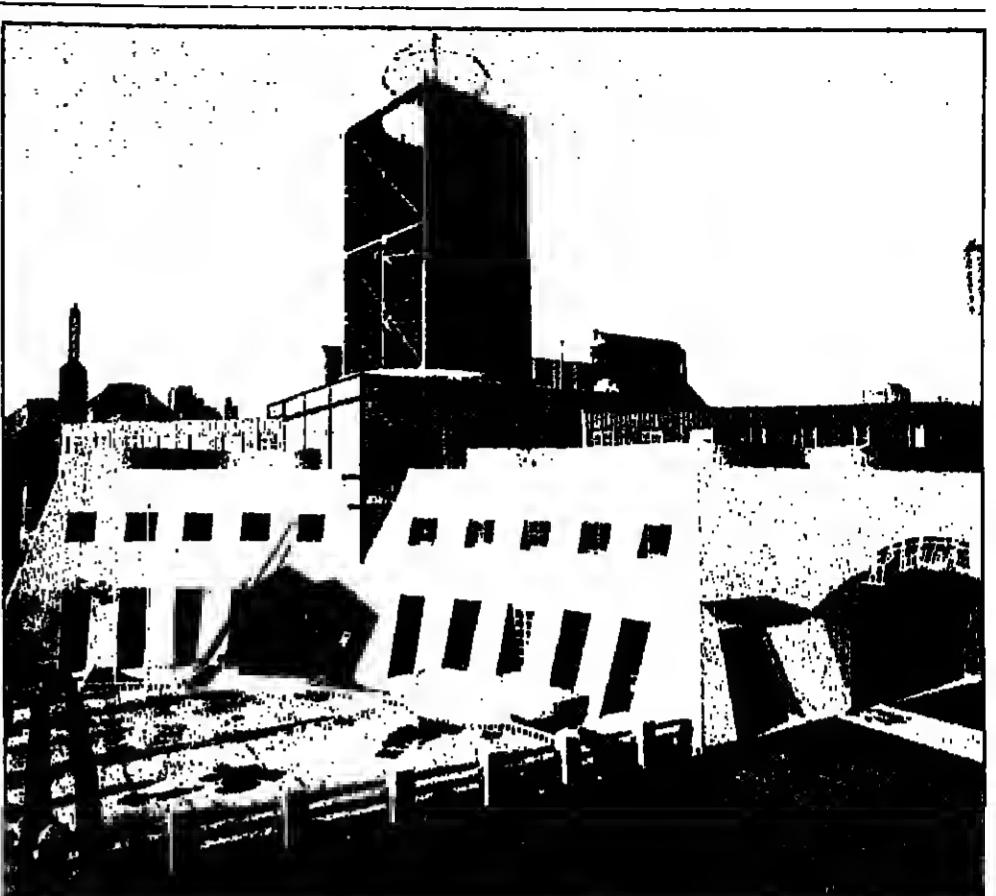
theoretical until the site actually

began to take shape. Also

continued page 30



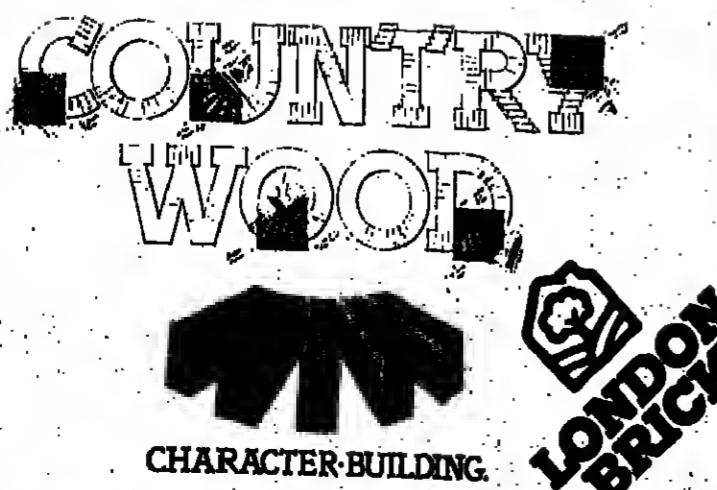
The European Plaza.



The Alberta Pavilion.

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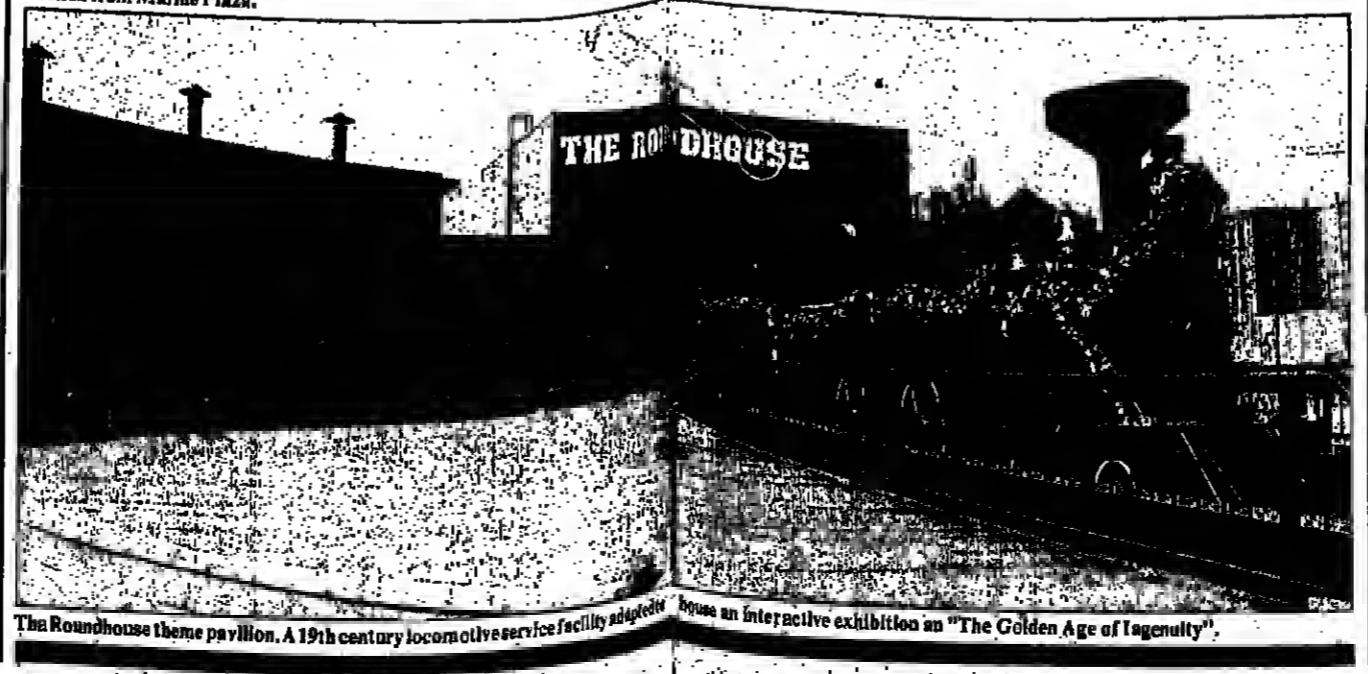


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Section from Marine Plaza.



The Roundhouse theme pavilion. A 19th century locomotive service facility which houses an interactive exhibition on "The Golden Age of Technology".

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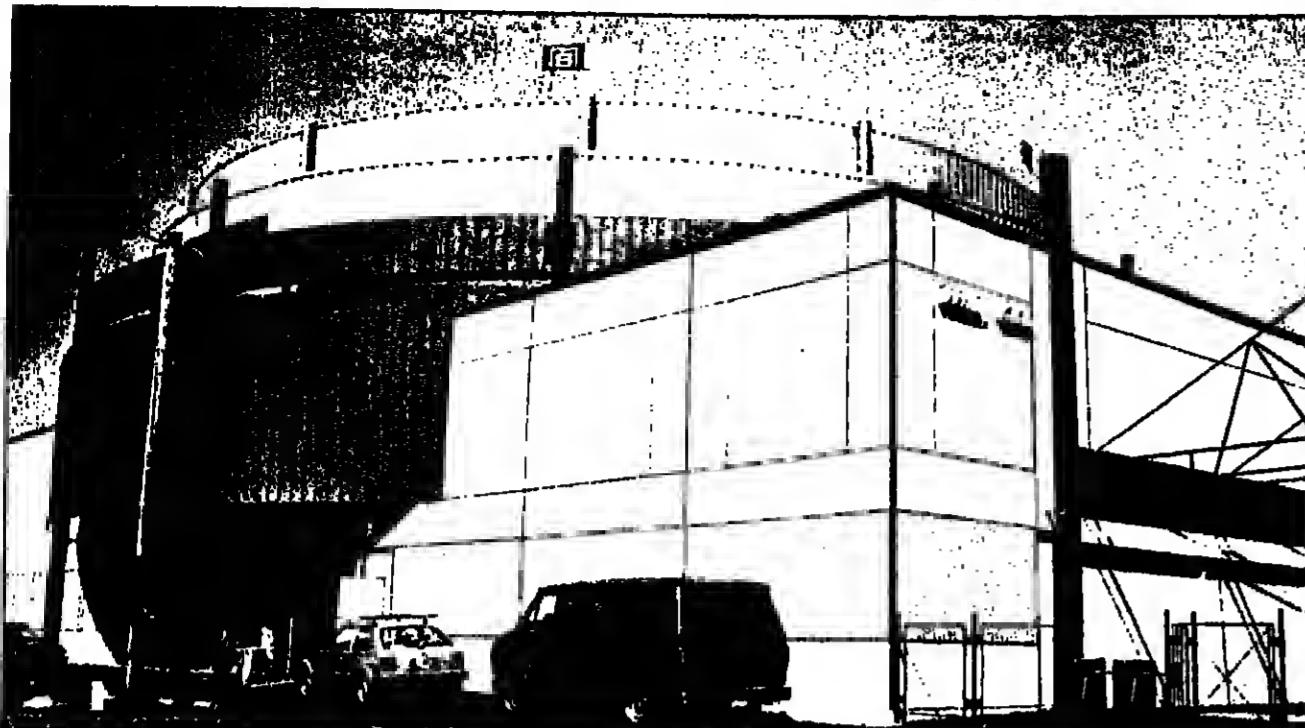
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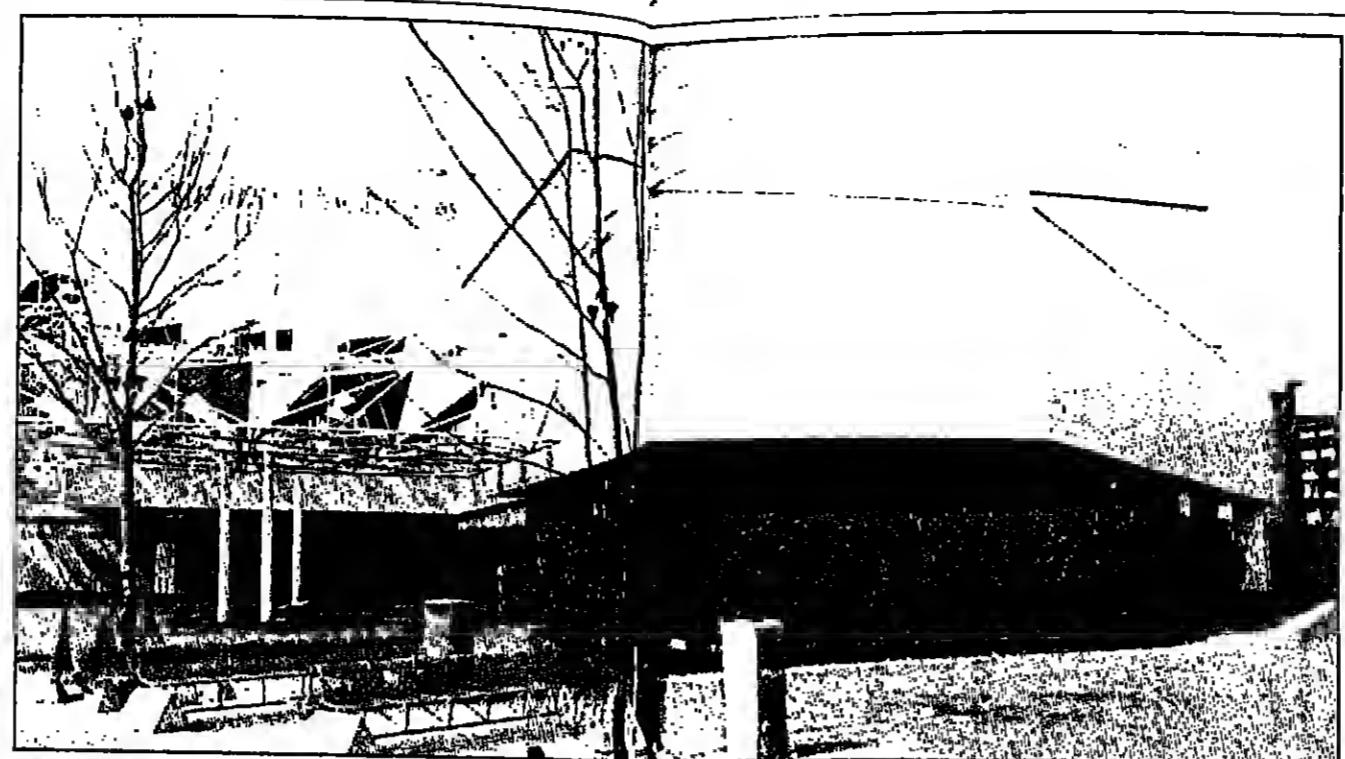
ONE NAME SAYS IT ALL

ON EXPRESS

Expo 86



Telecom Canada Pavilion.



The Canadian Pacific Pavilion incorporating two large film theaters. One of major designs by Walsman Dewar Groot Carter.



Designing without context. The function of this building, by Geoffrey Massey, was changed three times after completion of design.

The fluorescent that brings a new dimension to lighting design.

from page 29
exhibition module for the international participants. Lacking in firm criteria, Freschi's first plan was a test. No budget had been established, nor was the scale evident. Part of his job, therefore, was assessment — how many participants should be catered for? What cost? What size site?

The master plan, two years in the making, proposed an elaborate, design-oriented fair based on large galleries and interconnecting pavilions. The plan was then reviewed by a high-level international panel.

Although many fundamentals of shape and layout survived the ensuing improvisatory processes of planning and execution, as well as certain specific items, in large measure Bruno Freschi's vision became "the fair that never was". The management changes at the end of 1982 had brought in an expeditious team with little time for "Bruno's idealism".

Feeling increasingly undermined in his capacity as chief architect, Freschi was eased away from the action as important decision making fell to others: installations Bob Smith; landscape architect Dick Strong; theme park wizard Richard Battaglia, a Californian with Disney experience.

Battaglia had a key role in assessing resource requirements — the numbers and distribution of washrooms; kitchen space;

public space ratios in the restaurants and such like. His work resulted in the preliminary footprints for the core of official Expo structures, including the food and merchandising buildings. In the event, these footprints were to be the only design guidelines issued to architects (Freschi had plans for full design brief and an outside architectural and planning committee as at Expo 67, but claims that these were suppressed).

Another new arrival at the end of 1982 was Ian Carter (from Walsman Dewar Groot Carter), brought in as manager of design services and, subsequently, director of planning. He was to play a major role during the crucial 1983-84 planning period.

His involvement in awarding the first architectural commissions meant that he had to put together selection criteria for all the core structures, including the entrance gates and the 3½ mile monorail system. The site was broken into 10 sections, each becoming the responsibility of a single firm. These were the pioneer "architects". Other specific projects were to be addressed on an individual basis.

One of the area architects was Geoffrey Massey, son of actor Raymond Massey, and formerly a partner in the prestigious Erikson/Massey group. In 1984 he was awarded an area of six food and merchandising buildings. Also a veteran of Montreal

and Osaka, Massey is another who feels too little emphasis was placed by Expo 86 on the objective of masterminding quality design. "I never received a design critique for any of my work. And the planning decisions which were forthcoming were being made by people unqualified for the job."

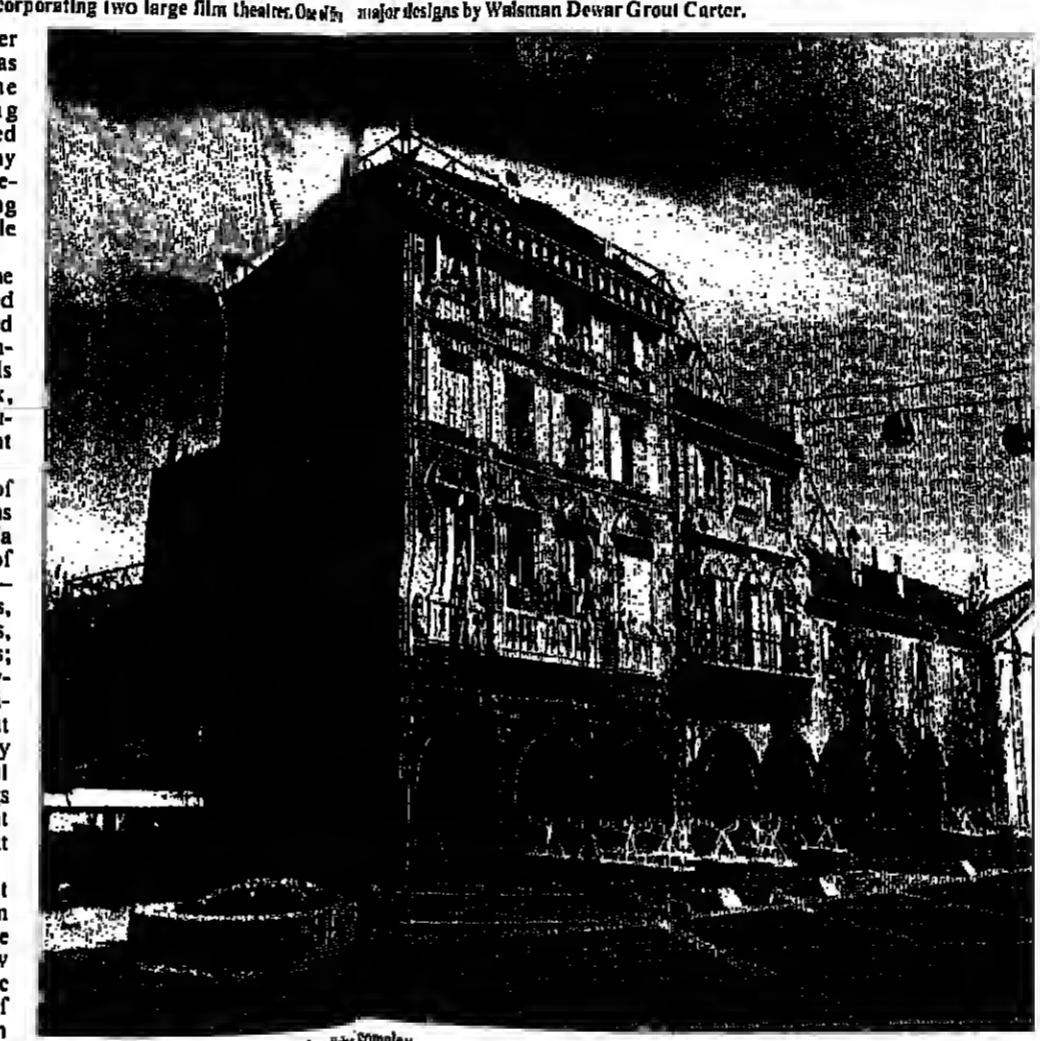
In Massey's view it all came down to "a bureaucracy based on fear", with everything geared to revenue. A constant turnover of Expo staff, heads seeming to roll by the week, making it impossible for architects to maintain a consistent rapport with their employers.

Furthermore, like many of the area architects, Massey was dissatisfied with the Battaglia guidelines, and has a string of other grievances: the budget — overly generous in some areas, hopelessly inadequate in others, with no provision for osmosis; the alterations done by occupying tenants; and, most frustrating of all, designing without context. "We were basically providing shells, often without any idea where the buildings were to stand on the site, or what their precise functions might be."

But Ian Carter, an ardent Expo apologist despite his own dismissal in 1984, regards the criticisms as unrealistic in view of the exceptional nature of the project. Design critiques, of sorts, were given, and design reviews were conducted, principally through a series of symposiums. In further defence of Expo he cites "the product mix", the necessary process of shifting buildings, partly as a tactful distribution of potential rivals — the China, USSR, USA and Cube pavilions; the major corporations; the Canadian provinces. It meant the functional buildings could not immediately be anchored.

At one stage a specific entertainment area was planned; all amusement rides, video arcades and jazz arcades were to be on one 8ha section. This was scrapped in mid-1984 and the components were scattered across the whole site, shoehorned in where space could be found. With things happening faster than planners could react to them, a CAD system was brought in to assist the product mix. Architects' footprints were fed into the computer and then moved about. It all went to substantiate creative director Ron Woodall's view that "the architectural style of a world's fair is a series of elements that look like they shouldn't be next to one another".

Site preparation too was an elaborate process. It began in 1983 with demolition of existing light industrial structures. Marshy areas had to be filled and foundation strategies developed for dealing with the problematic glacial till which covers much of the site; 25,000 cubic metres of silt were dredged



Geoffrey Massey's food and merchandising complex.

from False Creek and 8ha of piling and decking were installed (over land as well as water). Construction then proceeded according to the master control standard, patterned on the Canadian National Building Code, but geared to the temporary nature of the site.

The main setback occurred in mid-1984 with the eruption of union problems following BC government insistence on open bidding for contracts. Previously treated as a single site and therefore the preserve of unionised construction firms, Expo was opened up through implementation of economic development zones (EDZ). These allowed non-union firms to compete for specific projects.

After Expo 86 closes on October 13, the site, part of a total package of 40ha owned by the BC Place Corporation (a Crown corporation), will enter a major redevelopment phase. With a projected eventual value of \$3 billion, BC Place will be made up of parcels leased to private development, parks, seawall walks and public facilities, and Expo legacy buildings.

The first significant structure in this project, the 60,000-seat BC Place Stadium designed by Phillips Barratt and featuring the world's largest air-supported dome, was completed in 1983. BC Place is a central theme in Vancouver's hopes for increased international clout in the post-Expo age.

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Books

Energy design solution

The design of energy-responsive commercial buildings, US Solar Energy Research Institute (John Wiley, £54.35).

THERE have been so many books about the saving of energy in houses that it is refreshing to find a major publication about energy-conscious design in nondomestic buildings.

The design of energy-responsive commercial buildings is the result of several years of research and investigation into the design of medium to large-scale commercial buildings.

In any building design, there can be no "best" or "optimum" energy solution. As in any other part of the design, solutions will evolve which take account of many, often conflicting, factors. This makes the discussion of

energy issues difficult. It is easy to present abstract information on components — siting, insulation, heating systems and so on. It is much more difficult to consider the energy design for the building as a whole.

This book attempts to address energy issues from a whole-building standpoint. It does this by drawing on two valuable sources. First, it uses existing buildings to illustrate different approaches to energy issues. Secondly it draws on the experience of a series of short courses run with the American Institute of Architects.

The book is split into two halves. The first reviews and interprets the collective experience of the five principal authors. The second sets out a framework for design.

The information presented in Part One is intended to give the reader an understanding of the current level of knowledge in the field and to identify the principles, advantages and disadvantages of different environmental control options. Also, it assesses their influence on other building design considerations.

The opening chapters look at "climate adapted" buildings — in which energy issues have been thought about — and "climate-

rejecting" buildings, which have a total reliance on their servicing systems. Many examples are used to illustrate these two extreme approaches to design, with the final chapter in Part One giving a brief overview of the range of possible alternatives, including some useful information on loads and costs.

In Part Two, the emphasis shifts from learning through the experiences of others to the presentation of a design framework that can be used to help with the design of energy-conscious buildings. The first chapter in this part outlines a recommended design approach which involves setting up a base case which can be tested on energy and cost grounds. Alternative solutions can then be tested against the base case.

Again, real designs are used to illustrate this and subsequent chapters, which deal with the application of the design approach, financial analysis and pre-design energy analysis.

In the early chapters the book draws a parallel between the integration of energy issues in design today and the effect of the

1982. In all, 14 papers are reproduced. The initial ones deal with the effects on energy consumption of infrastructure and planning.

Two papers, by Richard Meier from the University of California and Peter Reibach from the Open University, attempt to integrate energy issues into models of land use and development patterns. They represent some initial ideas for assessing the energy implications of urban design, land use, planning and transport policies, but demonstrate that there is a long way to go before these issues are fully defined, let alone understood.

Another paper on the community aspects of energy use deals more specifically with energy consumption in selected villages in India. It gives a breakdown of the uses of different fuels and the use to which the fuels are put. The energy consumed in the production of building materials is the subject of another short paper, while the remaining text deals with building design for energy conservation.

A computer program for thermal simulation which has been developed at the Central Building Research Institute at Roorkee is covered by Parkash Chandra, while Vinod Gupta, the editor of the book, presents case studies of several energy-conscious non-domestic buildings.

It is important for Western architects dealing with building designs for developing countries to think about the implications of their energy strategy. It's tempting to solve the climate problems with an over-designed "hi-tech" solution which maybe totally inappropriate for a developing economy. Learning from the experience contained in this book could be the first step towards an understanding of appropriate design for developing countries.

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New products/International Hevac 86

Aluminium radiators

SPECIONAL column and low surface temperature convector radiators will be featured on Sennethem's stand. Superales are manufactured from extruded aluminium sections. They are high output devices suitable for most installations, especially domestic. Saferade are Sennethem's aluminium convector radiators with heavy duty emitters, low surface temperature, flat front panels which allow decoration with work, fabric or timber.



Enter 109 ON EXPRESS ENQUIRY CARD

Control

WHETHER it is a domestic heating system, or a commercial heating and ventilating installation, Honeywell Control Systems has a range of controls from which to choose. Its Residential Division will be showing its successful Sundial Plan range of energy saving equipment, and its new Solid Fuel Panel Sundial for use when a solid fuel appliance is linked to a gas or oil boiler. Other new products include the VT11 Thermostatic radiator valve and the AV1000 compensating control package.

Enter 110 ON EXPRESS ENQUIRY CARD

Water heaters

SAID to be the first commercial multi-flued water heater with reliable damper operation, which reduces stand-by losses to a minimum, the Janstor in its many sizes will be exhibited by Johnson & Sturley. Also on show will be an important new product to replace and upgrade heating systems in both public and private housing developments — the Hifan hot air fan. This is linked within an air heater cabinet and, in addition to supplying domestic hot water, can also heat up in three radiators.

Enter 111 ON EXPRESS ENQUIRY CARD

Energy control

ENERGY efficient controls and systems for monitoring and controlling the use of energy in industrial and commercial buildings are the business of JEL Energy Conservation Services. Five new additions to the Micro Series of controllers, designed primarily for the smaller application, will be on show for the first time. These are either stand-alone devices or can communicate with the Jelstar energy management system.

Enter 112 ON EXPRESS ENQUIRY CARD

Ducting

MAKING a direct challenge to the considerable quantities of imported flexible ducting used in this country, Flexible Ducting of Glasgow is launching a new air conditioning ducting which is designed to meet relevant British, German and French specifications, and which, it is said, has a quality equal to anything produced in Europe. A significant price advantage is claimed for this UK product, which will make its debut at Hevac.

Enter 113 ON EXPRESS ENQUIRY CARD

Instrumentation

TESTOTERM's stand will display a selection of instruments for measuring airflow velocity, humidity and temperature. These include the Testoven, handheld, multi-channel airflow velocity meter — available in three models — and the 9310 with a range of special probes for measuring ambient air temperature and surface temperatures. These are just a few of Testoterm's considerable range of handheld instruments which have been specially developed for the heating and ventilating industry.

Enter 114 ON EXPRESS ENQUIRY CARD

Energy plan

ACM's energy management system is being shown for the first time by Allen-Martin Conservation. This software control package enables the building management system to be supervised and controlled with a power comparable to minicomputer-based systems — but running on almost any low-cost business computer. The package uses a mouse "point-and-click" technique to call up animated graphical screens showing zone conditions and providing easy manipulation of all parameters.

Enter 115 ON EXPRESS ENQUIRY CARD

Programmer

ADVANCE details of a new generation of an electronic domestic heating programmer will be unveiled by Angamo at the exhibition. Neatly packaged in an elegant, slimline format, this six-hour programme features simple-to-operate slide controls which can be used to control heating and hot water, or domestic hot water alone.

Enter 116 ON EXPRESS ENQUIRY CARD

Digital controls

HEVAC provides a preview of Danfoss's MPS range of coordinated microprocessor-based, fully digital commercial heating controls, these have been designed for easy programming and adjustment, with an inbuilt communication facility which allows present and future link-up to BMS systems. The system complements the recently launched RPS 2024 programmable zone control which governs up to 24 zones and will interface with weather compensators, lighting systems, fans, valves, pumps and boilers.

Enter 117 ON EXPRESS ENQUIRY CARD

LP gas

CALOR Gas will be displaying a comprehensive range of equipment which can be used to provide full gas central heating when the site of the installation is miles beyond the end of the natural gas main. Calor Gas is the country's biggest supplier and distributor of liquified petroleum gas, which provides a clean, efficient and versatile alternative to other fuels. A wide variety of LPG appliances from many manufacturers will be on the Calor Gas stand.

Enter 118 ON EXPRESS ENQUIRY CARD

Radiant heaters

ON THE Hanover stand three new or improved products can be seen, all of which feature inexpensive energy saving. The range of Tenset thermosyphonic radiator valves have been improved and now have a positive off position, frost-protection, choice of numbered or centigrade scales etc. The second device is a new control — the Z2V — for air-conditioning; while the third is an automatic exhaust damper. Also on the same stand will be the Meges range of Lockheed valves with five funnels.

Enter 119 ON EXPRESS ENQUIRY CARD

Clean room systems

LUWA, the UK subsidiary of the Swiss environmental control company, will feature both clean room systems and replacement air filters. The clean room display will include the CG luminaire low distributor and RRM/RPT ceiling modules. Luwa's IRR-T series high efficiency air filters and a selection of the company's rigid replacement filters designed as a cost-effective successor to bag filters.

Enter 120 ON EXPRESS ENQUIRY CARD

Valves

MONODRA LIGHT Flues is approaching the exhibition in good heart. Its system is now fully recognised by the NCB and SFAS as a balanced flue for solid fuel appliances. In addition, the system has been included in the new BS 6644. The Monodraught system provides high level ventilation to an otherwise sealed compartment, eliminating the need to provide high and low level air slots; the new fan dilution system will also be on show.

Enter 121 ON EXPRESS ENQUIRY CARD

Flues

IN ITS 50th year, Stelrad has invested in a truly huge stand on which can be seen a massive array of its domestic boilers and radiators of all types, as well as much of its commercial equipment. Also, Stelrad will be giving visitors a peek into the future developments of the group. The display will also include a motor racing car and details of the company's sponsorship of an attempt on the British land speed motorcycle record.

Enter 122 ON EXPRESS ENQUIRY CARD

Golden jubilee

HI-TECH, yet competitively priced — these are two major features of the EY2400 building management system being displayed by Sauter Automation. Designed with a flexibility which allows any size of building to be serviced, the EY2400 has been used on some 200 installations. Being launched on the stand will be the RSZ stand-alone, fully intelligent, building management system substation. These products will be supported by a range of Sauter control valves.

Enter 123 ON EXPRESS ENQUIRY CARD

Hi-tech system

RBR Contract Services has published a new folder of fact sheets describing its repair methods for concrete, masonry and timber components in buildings. Resin injection techniques are emphasised in RBR's work and these are briefly described, including an article on restoring life to old timber by Chris Bowden of RBR. Mini restoration case studies are included concerning contracts in such prestigious locations as Hampton Court Palace and Kew Palace.

Enter 124 ON EXPRESS ENQUIRY CARD

Building repair

HIGH levels of security can be achieved using BRC Engineering Company's Weldfence 358 with two mesh sizes and in single or double-skin panels. Maximum fence height is 5.3m and the mesh is fixed to Bi-Siel posts and topped with double-coil barbed tape obstacle topping, supported on T-bars. Construction is of steel wire, hot dip galvanised to BS 729 and/or plastic coated. There are various sizes of mesh available.

Enter 125 ON EXPRESS ENQUIRY CARD

Fencing

WITH lighting levels as low as 5 lux, the new Panasonic WV-CD50 miniaturised monochrome CCTV camera still produces crisp images. The introduction of Couple Charge Device technology ensures that in bright conditions no burn-in spots occur. Low maintenance, low power consumption and stable performance are characteristics of this instrument which weighs only 200 grams and measures 41 x 41 x 55mm without lens. The WV-CD52 power supply comes with the camera and can be located up to 100m away.

Enter 126 ON EXPRESS ENQUIRY CARD

Fluorescent fittings

MANY of the finishes, styles and installation features normally associated with one-off luminaires are included in Moorlife's Broadsheet range of competitively priced fluorescent fittings. A newcomer to the range — the 30 twin surface mounted model — has a sleek, geometrically rounded, satin anodised extruded aluminium casing. All new models incorporate the Broadsheet profiled reflector which gives controlled light distribution.

Enter 127 ON EXPRESS ENQUIRY CARD

Floral displays

CREATED from natural dried grass and flowers using a new technique, Greenleaf has introduced a range of sculptured floral bouquets. These features can be produced in any colour, shape, texture or design and all can be flame-proofed to full British Standard requirements. Greenleaf has extensive experience in creating, installing and maintaining real plant displays, as well as in displays which include polyester silk plants.

Enter 128 ON EXPRESS ENQUIRY CARD

CCTV camera

WITH lighting levels as low as 5 lux, the new Panasonic WV-CD50 miniaturised monochrome CCTV camera still produces crisp images. The introduction of Couple Charge Device technology ensures that in bright conditions no burn-in spots occur. Low maintenance, low power consumption and stable performance are characteristics of this instrument which weighs only 200 grams and measures 41 x 41 x 55mm without lens. The WV-CD52 power supply comes with the camera and can be located up to 100m away.

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SPALDING PRO PLATE PLUS	14.00	2.10	16.10
SPALDING PRO PLATE XL	16.00	2.18	18.18
SPALDING PRO PLATE	8.40	1.41	9.81
LONGFLITE	8.50	0.95	9.48
TITLEIST TOUR 364 (BALATA)	14.50	2.45	16.95
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PINNACLE II	14.00	2.18	16.08
WILSON STAFF TOUR	18.00	2.28	17.28
WILSON STAFF TOUR	14.00	2.10	16.10
SLAZENGER BB1 XD*	14.00	2.28	17.28
SLAZENGER BB1 XTC*	14.00	2.28	17.28
RAM LASER	12.75	2.25	15.00
RAM LASER	14.00	2.18	16.18
GOLDEN RAM 492	14.00	2.18	16.18
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No 28

H3 Rainwater drainage

BY HENRY HAVERSTOCK

Tel: 01-367 7676 with comments or criticisms

REQUIREMENT APPROVED DOCUMENT

This states that the acceptable level of performance for a rainwater drainage system is for it to:

- carry the flow of rainwater to an outlet, which may be either a surface water or a combined sewer, a soakaway or a watercourse;
- minimise the risk of blockage and leakage; and
- be accessible for clearing blockages.

The AD then splits into two sections: one on gutters and rainwater pipes, and one on rainwater drainage.

STARTING POINT

The intensity of rainfall should be assumed to be 75mm per hour. The provision of the AD do not apply to areas of 50mm or less, including small roofs and balconies, unless they receive a flow from a rainwater pipe or from paved or other areas.

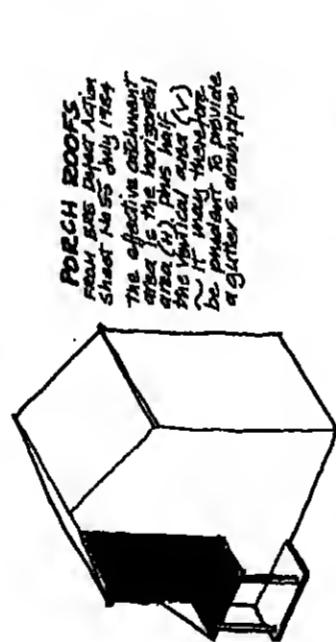
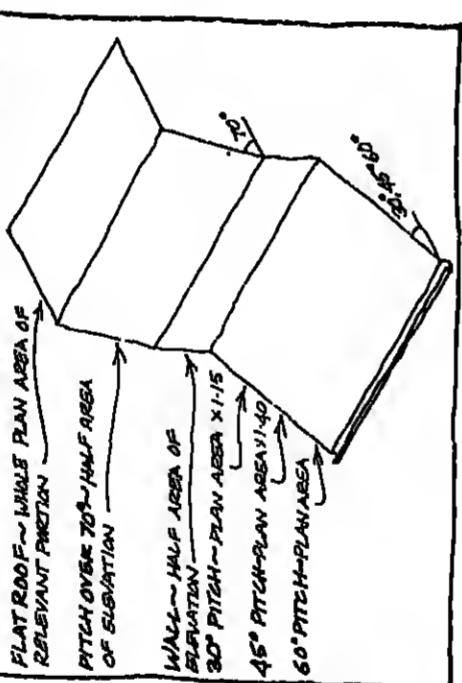
GUTTERS AND RAINWATER PIPES

The flow into a gutter depends on the area to be drained and whether the surface of that area is flat or pitched. The illustration shown shows how to calculate the "design area" of the surface to be drained.

When calculating areas such as porch roofs, be careful to include the "vertical wall(s)" behind, although the roof itself might be small enough not to need a gutter or downpipe, the presence of the vertical wall considerably increases the catchment area and a BRE survey found that often no gutter was provided to porches that needed them.

The provisions for rainwater drainage in the Approved Document for the new Regs are much more detailed and specific than the old Regs. This should mean there will be less variety of interpretations. Henry looks at the guidance given and adds some points from BRE research.

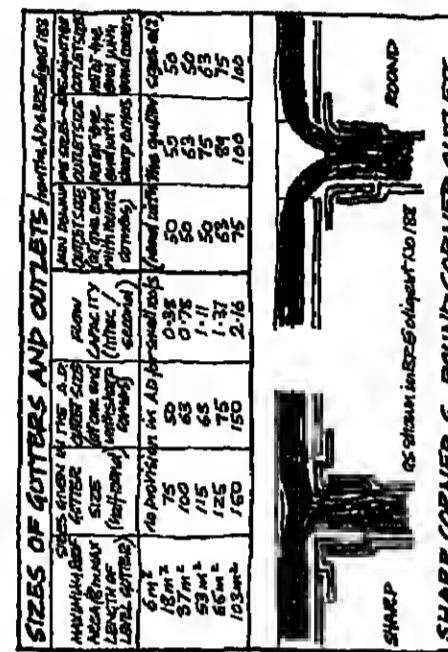
The illustration below shows the largest design area that should be drained into a gutter which is up to 5m long and 3m high. These sizes are for a gutter which is up to 5m long and 3m high.



SOAKAWAYS

If drainage to a soakaway is to be adopted, the subsoil and general level of the ground water should be investigated. Soakaways will only be effective when they are wholly above the water-table. Sand and gravel subsoils can be very permeable and a soakaway will be able to disperse a great deal of water in such subsoil. London Clay, Oxford Clay and Gault are almost impervious and no soakaway formed in them would be able to disperse much water. Care should be taken with land overlying Chalk, as there have been cases of the activation of "swallow holes" in the chalk.

Any soakaway should be built on land lower than or no soakaway should be closer than 5m to a building. BRE Digest 151, more cautious and does not give any general safe distance because of the wide variation in soils and site conditions. It recommends that the advice of the local authority should be sought as a source of detailed knowledge and experience of the locality.



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PRIVATE SECTOR APPOINTMENTS

ARCHITECT
Salary up to £13,662
+ essential car users allowance.

**ARCHITECTURAL
TECHNICIAN**
Salary up to £10,568
+ essential car users allowance

Family Housing Association (Swansea), are looking for a suitably qualified Architect and a Technician to establish an in-house design team which will undertake a range of new build schemes for the elderly and to main the associations inner city rehabilitation programme. Previous housing association experience, although desirable, is not essential.

Further information and application forms are available from:-

André Norris, Director,
Family Housing Association (Swansea),
43 Walter Road, Swansea SA1 5PN,
Telephone: 0792 461092

DEREK WALKER ASSOCIATES
require first class
ARCHITECTS & TECHNICIANS

for London and Milton Keynes office to work on major projects in the U.K., USA and Hong Kong. Applicants should have a minimum of five years' experience, though outstanding design graduates would be considered.

Please telephone:
(0908) 605883 for details
or write to:
Elizabeth Hutchinson
The Old Rectory
Great Linford
Milton Keynes MK14 5AX

Renton Howard Wood Levin Partnership

RHWL

77 Endell Street
London WC2H 9AJ

We are looking for an experienced
SITE ARCHITECT

for a large new-build office project in the West of London.

Please apply with C.V. marking your application
CL to Janette Payne at the above address.

TERRY FARRELL PARTNERSHIP
are expanding and urgently need experienced

ARCHITECTS & PROJECT ARCHITECTS

The quantity, scale and quality of our new building works is such that we need Architects and Project Architects with upwards of 4 years appropriate office experience. Our current office restructuring means that the right people could take on key roles contributing to the firm's future direction.

The practice's method of working relies on a very capable and dedicated personnel sharing responsibilities in project teams. We are committed to realising the products of innovative design. And enjoying the process!

Please apply in writing with C.V. and worksamples to:
Jane Kille, Terry Farrell Partnership,
8 Paddington Street, London W1M 4DN

Richard Hemmingway & Partners
require an
Architectural Technician
with several years experience to assist with varied and growing workload in London office.
Please apply in writing with C.V. to:-
RICHARD

HEMINGWAY
& PARTNERS
48 Grafton Way, London W1P 5LD

NORMAN & DAWBARN
GUILDFORD

require
ARCHITECT OR ASSISTANT

experienced in CAD (GDS preferred) to
join design team.

Phone or write to:
Heather Wahl, Norman & Dawbarn
College House, Woodbridge Road
Guildford, Surrey
GU1 4RT
Guildford 33551

ND

**ARCHITECTS ASSISTANTS TECHNICIANS
INTERIOR DESIGNERS SURVEYORS**
Discuss your future prospects with ROBIN GIDDINGS. Send c.v.

MALLA ARCHITECTURAL APPOINTMENTS
334 EUSTON ROAD NW1. Tel: 01-387 1043.

ACP require skilled and enthusiastic
**ARCHITECTS and
TECHNICIANS**

to work in our main office in Hertfordshire and our branch office in Devon (Exeter).

Ideally you will have designability and a good knowledge of construction to work on a variety of new and rehab projects.

If you think you meet our requirements or have other qualities, send detailed CV immediately to:

Architects Co-Partnership Limited
Northgate House
Potter's Bar
Herts EN6 4PS
Telephone (0707) 51141



ASEP
Andrews-Smith Ellis Partnership
93 Great Titchfield Street London W1P 7FP

ARCHITECTS

with 3-5 years experience are required to join an expanding practice working on commercial and institutional projects.

Please apply with CV to the above address or phone Jim Clark 01-580 9979.

BUILDING SURVEYOR

Building Surveyor, qualified RICS, urgently required for multi-disciplinary practice of Architects, Engineers, Quantity Surveyors and Management Consultants who now wish to develop a Building Surveying service. Excellent opportunity for the right person who is naturally meticulous and, at the same time, has the desire and flair to promote and develop the Building Surveying service, whilst having the opportunity to work closely with other professions.

Please reply in own handwriting with C.V. enclosing the envelope 'B.S. Application', to:

Design Group for Industry
Talisman House, Talisman Square
Kenilworth, Warwickshire CV8 1JB

To place your advertisement Telephone 01 585 7777 ext 453 or 8004 (ext 4866/38) or write to: Paul Hudders Building Design Consultancy, 30 Calderwood Street, London SE11 6DH

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PUBLIC SECTOR APPOINTMENTS



ARCHITECTURAL ASSISTANT

We have a vacancy for an Architectural Assistant/Technician to join our established team dealing with housing in South Wales. The position requires initiative and the ability to work with the minimum of supervision. Applicants should possess a minimum of HNC or equivalent and have work experience in the field of housing.

The successful applicant will be required to provide his/her own car for which a mileage allowance is payable.

Salary in accordance with experience, but in the range of £6,000-£10,500. Application forms, to be completed and returned by 24th May 1986, are obtainable from:

Ailson Pulen
Boundary Housing Association for Wales Ltd
387 Newport Rd, Cardiff CF2 1RP
Tel: 0222 498841

PLANNING TECHNICIAN

Planning Department
Salary £5,088-£8,028

The Borough of Broxbourne is situated on the Northern edge of London and is subject to intense development pressure. It contains a mixture of urban development and green belt countryside. There is a heavy and interesting workload falling on the planning office which must respond to the Council's desire to protect and enhance the environment of the area through positive and effective planning.

This post will be located in a small but busy technical section dealing with planning statistics and legislation, local land searches, artwork displays, plan preparation, photography, data mapping and associated activities. The postholder will liaise closely with the development control and local plan section. It is anticipated this post will also play a key role in the reorganisation and computerisation of all planning records and the delineation of plans and maps, which are currently underway.

Applications for this post, which will provide a heavy but stimulating workload and a pleasant area in which to live, are invited from experienced technicians holding a relevant qualification.

Relocation and housing assistance is available in appropriate cases together with a casual user car allowance.

Write to the Personnel and Management Services Officer, Manor House, Turners Hill, Cheshunt, Herts. EN8 8LE for an application form and further particulars to be returned by 22nd May, 1986.

BOROUGH OF BROXBOURNE

PRIVATE SECTOR

BENSON & BENSON
Chartered Architects
urgently require keen, young,
Architectural Assistant
with some relevant experience to
work on a variety of projects
involving the repair, alteration and
conservation of historic buildings.
Send CV, and write with details of
availability to:-
Jeremy Benson, Walpole House,
Chiswick Hall, London W4 2PS.

LEWIS & MAYER LTD
ARCHITECTURAL
ASSISTANT - TECHNICIAN

We are a small practice in an attractive part of West London with an increasing and varied workload. We are looking for an
**ARCHITECTURAL
TECHNICIAN OR
PART II STUDENT**
able to work under the direction of a partner but with minimum supervision. Salary negotiable.
Please apply in writing to:
Councillor C. G. Clegg
No 9 Castle Terrace
Pembroke, Pembroke SA7 1LA
enclosing C.V. and details of salary requirements

OFFICE TO LET

OFFICE ACCOMMODATION
available near Victoria Station, 400-1100 sq. ft. with full kitchen, bathroom, or quantity surveying practice. Possibility to share facilities.
Full details please phone
Sheila Johnson on
081 5228 or 081 6784

CORPORATION OF LONDON

Department of Architecture & Planning

Architect

£12,234-£13,446

An Architect is required to assist the Principal Architect in design and implementation of a major refurbishment scheme for the Mansion House, the 18th century residence of the Lord Mayor of London, a Grade I listed building. This scheme is currently at the evaluation stage.

Architectural Assistant

£8,352-£9,750

An Architectural Assistant is required to work on a variety of interesting buildings within the City and at the Corporation's other widespread sites elsewhere in and around Greater London.

Both posts are located in Guildhall in pleasant surroundings, and although initially short term, it is hoped that the initial contracts will be extended. The work of the Architectural Division covers a far wider range of building types than undertaken by normal local authority.

Non-smokers preferred, though this is not essential. For further details please ring 01-606 3030 ext. 2707, 2725 or 2804; or write to the City Architect & Planning Officer, P.O. Box 270, Guildhall, London EC2P 2EJ. Closing date: 27th May 1986.



Department of Architecture & Planning

To place your advertisement Telephone 01-855 7777 ext 453 or 2004. Fax No 8905303. Address: Paul Nudds Building Dept 10, Clarendon 20, Caversham Road, London SE18 6QH.

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